SOME FACTORS AFFECTING THE HOLDING POWER

OF OKLAHOMA HIGH SCHOOLS

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by

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CHAPTER I

INTRODUCTION

Experiences during the recent crisis of World War II uncovered many hidden facts about our present educational system. Some of these facts are uncomplimentary or even embarrassing to school officials and the general public alike. It has been estimated that more than 350,000 selectees were forced to sign their names with a mark because of illiteracy. Moreover, countless thousands lacked the proper mental training to render them most effective soldiers for the protection of their country.

The responsibility of our public school systems cannot be ignored. It is true that many of the number cited above never gave the schools a chance to educate them, while others began their formal schooling but dropped by the wayside for one reason or another. It is not the purpose here to condemn the schools for the illiterates who never made themselves available for training, but attention is directed to the vast number of pupils who entered school but never finished because of unfavorable circumstances, lack of interest, or insufficient guidance.

School-leaving is a central problem today, facing any agency that deals with youth. Along with self-preservation and preservation of the race, it is an important problem in the life of each individual youth. Leaving school is in a greater degree an artificial problem imposed upon the child, and in a less degree explainable as something that "just happens to him" in the complex of other modern conditions.[1]

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[1] Samuel Cornelius, "School Leaving," School and Society, LIII (January 4, 1941) pp. 29-32.

Many studies have been made to determine why children quit school before they finish the prescribed course; most have been in the form of a questionnaire to the pupil, asking for an appraisal of the school and the teachers, as well as the reasons for his quitting. Assuming the questions are well worded and free from implications on the part of both the questioner and pupil, this method offers an authentic source of information, provided the pupil actually knows his real reason for leaving school. The latter is doubtful in view of the fact that the reasons seem to change with time after the pupil has left school. A very large percentage indicate "lack of interest" as a chief reason, when in reality this lack of interest may be influenced by numerous other factors such as lack of finances, lack of friends, poor social adjustment, laziness, poor health, discouragement by parents, insufficient or improper guidance, poor teachers, limited educational program, etc.

The purpose of this study is to determine those characteristics of a school and community which seem to be associated with their success in graduating a large percent of their children. In other words, it will attempt to discover in an impartial manner some of the factors which affect the holding power[2] of Oklahoma schools.

The study has been necessarily limited to certain aspects of the problem to facilitate the research and treatment of data. Only high schools[3] of Oklahoma will be considered, and they will be held account-

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[2] "Holding power" will be used throughout this paper to indicate the ability of a school to keep its pupils in attendance until they graduate from high school. It will be expressed as the percentage of a freshman class which graduated four years later.

[3] "High school" will be interpreted to mean a four year high school including grades 9-12, unless otherwise stated.

able only for those pupils who enrolled in the freshman class.
Although a school's reputation may influence an eighth grade graduate
not to enter high school, it seems only fair in this study that the
schools should not be held responsible for pupils they never had a
chance to hold.

Factors of a school to be considered in determining its holding
power include the number of teachers, the pupil-teacher ratio, size
of the high school, straight or split term, type of organization,
interest activities[4], number of units as rated by the State Department
of Education, and the curriculum. Other factors to be used are the
geographical location, location with respect to population and wealth
distribution, location with respect to institutions of higher learning,
major occupation of the community, and administration practices that
may influence the attendance and holding power of that high school.

The personal and professional qualifications of individual
teachers were not considered because it is believed that any influence
they might have on the holding power would be reflected in the type
of school which had the practice of hiring teachers with certain
minimum qualifications.

Extra-curricular activities were purposely omitted from this
study because they have been evaluated in numerous ways by other
research workers.[5] Also, reliable data were not available without a

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[4] "Interest activities" will be construed to mean a student news-
paper, student government, student movies, or any combination of these
three items.

[5] Haskell G. Clark, The Present Status of Extra-Curricular
Activities in the Oklahoma High Schools, pp. 48-51.

separate survey which would constitute a complete research problem within itself. The three items classed as interest activities could well be called extra-curricular. They were included because they were easily accessible along with the other data; and too, they represent activities least likely to be found in a school where pupil interest is ignored.

The problem of school finance or per capita cost of education has not been overlooked. The factors of the schools showing the greatest holding power will reflect the cost of desirable education by simple calculation of the cost of providing the various factors. Furthermore, several extensive studies have been made by reputable research workers[6] to determine the costs of various types of education and the most economical system of local organization.

According to reports from many sources, the problem of high school holding power may be typically a rural problem. Walter H. Gaumnitz makes this statement:

> As would be expected, the cities, with their better trained and better paid staffs, their broad educational programs, and their well-equipped schools, reached and retained by far the largest proportion of the available youth. Because of the opposite conditions obtaining for the most part in the schools maintained for youth living on the farms, only a little more than half of their number attended school immediately preceding the war.[7]

Table I somewhat verifies the above statement, showing that five to fifteen per cent more rural than urban pupils of high school age were not in school in 1940.

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[6] Some of the most noted works by such men as P. R. Mort, F. W. Cyr, H. A. Dawson, H. J. Burke, and members of several research committees are listed in the bibliography.

[7] Walter H. Gaumnitz, "High School Attendance and Postwar Planning", Education for Victory, III (November 3, 1944) pp. 7-8.

TABLE I

COMPARISON OF THE PERCENTAGE OF RURAL AND URBAN CHILDREN
OF HIGH SCHOOL AGE WHO ARE NOT IN SCHOOL: 1940.[8]

Age	Urban Per Cent	Rural Per Cent
13	2.9	7.4
14	4.0	11.1
15	6.6	18.4
16	16.4	31.6
17	32.5	46.8

Can it be, even though we boast of our free public schools, that
children are condemned to unequal opportunities for a high school
education merely because of where they live? This opinion is expressed
by one of our leading educators when he says, "If a child is born in the
right district, he gets off to a good start. If not, his future welfare
is in danger. His education is literally defeated by the height of the
corn."[9]

The whole aim of this study is to discover, as far as possible,
those factors of a high school which tend to encourage boys and girls
to finish high school, whether they be economic, social, physical or
intellectual.

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[8] David T. Blose, "School Attendance of Urban and Rural Pupils,"
Education for Victory, III (November 20, 1944) 20.

[9] F. W. Cyr, Paying for our Public Schools, p. 32.

CHAPTER II

A SURVEY OF RELATED MATERIAL

In 1928 Martin made a study of the holding power of Oklahoma high schools while doing graduate work at the University of Oklahoma. His problem was to determine the holding power of Oklahoma high schools during the preceding years, irrespective of cause. Once determined, it became the problem of the school officials to devise methods of improving their school's holding power if they felt such action was desirable.

Martin found the holding power of all high schools in the state to be 46.3 per cent during the period 1923-1927.[1] This figure probably is slightly lower than it should be because he compared each successive class with the freshman class of that year. With a steady increase in high school enrollment during these years, the freshman class of 1927 was larger than the one of 1923, which included the graduating seniors under consideration. Such an increase would reduce the apparent holding power computed on this basis.

The schools showed a greater holding power for girls than for boys, being 50.4 per cent and 41.7 per cent respectively. The period from 1917 to 1921 was also considered, but the effect of World War I on the school enrollment and attendance renders an unreal comparison between the two periods.

Ten counties having the highest holding power were chosen and compared with the ten counties having the least holding power.[2] The

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[1] James T. Martin, The Holding Power of High Schools in Oklahoma, pp. 40-41.

[2] James T. Martin, Ibid., pp. 20-30.

ten highest counties were Grant, Custer, Alfalfa, Garfield, Kingfisher, Noble, Kiowa, Greer, Nowata, and Kay; while the ten lowest counties were composed of Okfuskee, McIntosh, LeFlore, Latimer, Sequoyah, Atoka, McCurtain, Delaware, Pushamataha, and Cherokee. Martin believes the differences of the two groups results primarily from the distribution of wealth. Another factor that may have had some influence was the location of certain state supported institutions of higher learning. Other things being equal, he believed that holding power varied inversely with distance from these institutions.

High schools showed a slight improvement in their holding power from 1918 to 1927.[3] A greater increase in holding boys than girls had been made but a larger percentage of girls continued to finish high school during this period. The holding power did not increase as fast during this period as the number which entered high school as freshmen.

Martin offered fourteen suggestions for improving a school's holding power, but did not attempt to show what relation existed between these factors and the holding power.[4] His suggestions may be grouped under four headings: (1) expansion of extra-curricular activities, (2) reorganization of the curriculum, (3) revision of the compulsory attendance laws, and (4) improvement in school-community relationships.

Numerous bits of research on the holding power of high schools have been published in various educational magazines. They generally represent a study of the problems of a single school or a single class. Some of the findings are considered sufficiently important to be reviewed here. Studies dealing with pupil attendance have a direct

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[3] James T. Martin, Ibid., pp. 52-53.

[4] James T. Martin, Ibid., p. 50.

bearing on the school holding power for it has been an empirical fact, evident to school men for many years, that the pupils with the poorest attendance are the least likely to continue their school careers.

A study was made by C. B. Smith of the pupils dropping out of Morris High School, Morris, Illinois.[5] It is located just outside of Chicago and the city has a population of about 6,000. The results of his study would indicate that the only significant differences between pupils dropping out and the entire student body are economic status and attitude toward school. The data showed that relatively more of the pupils from the lower socio-economic groups were among those who quit school and that more of this group expressed a negative attitude toward school.

The success in school as related to economic status of the home of all families of Wagoner, Oklahoma was studied by Prince in 1936. With the aid of local bankers and social workers, he divided the community into four groups according to economic status.

An effort was made by civic organizations of Wagoner to insure educational opportunity for each child who cared to take it. Books, supplies, clothing and meals were furnished free to all who applied for them.

Attendance laws were not enforced; however, all children were encouraged to attend school. Records of attendance were kept on all children of the community, including those who were not enrolled in school.

Prince found a definite relationship between the economic status of the family and their willingness to take advantage of the educational

[5] C. B. Smith, "A Study of Pupils Dropping Out of a Mid-western High School", School Review, LII (March, 1944) pp. 151-56.

opportunity.[6] The groups were arranged according to decreasing economic status. He found that Group I lost 15.9 per cent; Group II lost 41.9 per cent; Group III, 39.9 per cent; and Group IV lost 52 per cent of their attendance opportunity. The entire school lost 34.4 per cent of its possible attendance.

In general, Prince concludes:

> It may be said that children from the better groups are attending school a satisfactory part of the time, but children from the lowest groups are losing much of their time from school. This condition, since the community has done much to assist, seems to be voluntary on the part of the student and satisfactory to the parents.[7]

Cornelius devised four graphs by which any county in the United States may measure its schools' holding power by applying figures from the reports of the 1930 census. He condemns the schools for not taking more interest in holding their pupils in school and points out the fact that "few" school systems can show even a summary of their records in such a form that their comparative situation in school-leaving is immediately clear".[8]

The comparatively low rank of the state of Minnesota on an educational scale devised from data of the sixteenth United States census caused the University of Minnesota to make a study of why their children, especially their rural children, leave school before completion.[9] Two typical counties were chosen and an intensive study was

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[6] J. L. Prince, Economic Status as a Factor in the Educational Success of School Children, p. 26.

[7] J. L. Prince, loc. cit.

[8] Samuel Cornelius, op. cit., pp. 29-32.

[9] G. F. Ekstrom, "Why Farm Children Leave School", School Review, LIV (April, 1946) pp. 231-37.

made by means of the questionnaire and personal interview. They found that 59.5 per cent of the drop-outs were boys compared to 40.5 per cent girls. Forty-eight per cent of those leaving school were scholastically rated in the third quarter from the top of their class and only 29 per cent in the fourth quarter. It might be noted here that less than one-third of these pupils were failing or nearly failing in their class work when they left school. The school administrators gave three principal reasons for the drop-outs: (1) lack of interest, (2) the pupils had to leave on busses at the close of the day, and (3) the drop-outs did not have as many special talents as the average pupil. There seemed to be an undercurrent of indifference on the part of the administrators as if many of these drop-outs were considered "good riddance". Ekstrom concludes that there were four main reasons why these rural children quit school: (1) lack of encouragement on the part of parents and other adults in the community, (2) inaccessibility of high school because of distance or lack of transportation, (3) lack of school prestige, and (4) lack of an orientation program in the elementary grades. The report concluded, "except for isolated cases, the lack of finances and the shortage of help on farms normally do not keep pupils from going to high school".

The inaccessibility of schools for rural youth is again emphasized by N. G. Fadness, principal of the public schools of Kendall, Wisconsin. His study concerns Monroe County in the western part of the state. Although other reasons emerge among those most frequently cited, "full interpretation of the evidence pointed to inaccessibility as the prevailing underlying cause" of children not attending high school.[10]

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[10] Editorial, "Why Rural Youths Do Not Attend High School", School Review, XLVIII (October, 1940) pp. 568-69.

George Melcher, superintendent emeritus of Kansas City, Missouri,
made an investigation of the reasons why 117 pupils quit school.[11] He
found that 73 of this group condemned the school, the curriculum, the
teachers, or failing grades as the causes for their leaving school.
Twenty-four had entered military service, seven had quit to get married,
and the remaining thirteen gave poor health as their reason. A signifi-
cant fact is that one year after quitting school, with nearly 100 per
cent gainfully employed in lucrative war jobs, 107 of the original 117
quitters would advise boys and girls to finish high school.

A similar survey was conducted by Wyatt of all pupils dropping out
of five Oklahoma high schools during a two year period to discover the
basic causes of their leaving. The five schools considered were Cement,
Cyril, Fletcher, Rush Springs, and Verden, all located in the south
central part of the state. The major portion of his information was
obtained by interview, aided by a questionnaire.

The results of his study are summarized in Table II. Note the
large percentage of both boys and girls that could be grouped under
the general heading of "dissatisfaction" or "lack of interest". Wyatt
tempers his conclusions with this significant statement:

> In analyzing the reasons given by the pupils for dropping
> out of school, there are several factors to be kept in mind.
> The first and foremost is the power of suggestion. Many of
> the pupils were unable to decide what made them quit school
> until some suggestions were made or direct questions asked. A
> number of the students had been out of school for two years
> and had probably forgotten the real reason for quitting. The
> law of self-justification always entered into the reasons
> given.[12]

The causes of absences among girls in the high school of Tucson,
Arizona were investigated by Brazelton. She analyzed the cases of

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[12] W. B. Wyatt, A Study of the Basic Causes of Students Leaving
High School, p. 56.

TABLE II
PRINCIPAL REASONS GIVEN BY PUPILS FOR DROPPING
OUT OF HIGH SCHOOL, 1936-1937. [13]

Reason	Boys		Girls		Total	
	Number	Per cent	Number	Per cent	Number	Per cent
Curriculum not practical	20	20.5	16	23.3	36	22.5
Dislike school	17	18.6	14	20.5	31	19.3
Married	5	5.2	15	21.3	20	12.5
Dislike grades of teachers	11	11.8	6	8.7	17	10.6
Finances	10	10.9	6	8.7	16	10.0
Lack of parental encouragement	7	7.7	4	6.0	11	6.7
Urge for adventure	8	8.5	3	4.4	11	6.7
Ill health	3	3.3	2	3.0	5	3.0
Unclassified	10	10.9	3	4.4	13	8.1
Totals	91		69		160	

those girls who were absent more than the average girl in high school.
Illness accounted for 59.3 per cent of their absences. Lack of
individual adjustment caused 19.3 per cent, truancy 12.5 per cent,
work 5.3 per cent, and travel with parents was responsible for 3.0
per cent of the absences.[14] This study was cited to show the contrast
between various reports of causes for high absenteeism and low holding
power.

The part health plays in the school's holding power is difficult
to determine. A large percentage of absenteeism is blamed on poor

[13] W. B. Wyatt, op. cit., p. 16.

[14] Calanthe Brazelton, "Excessive Absence of High School Girls",
School Review, XLVII (January, 1939) pp. 51-55.

health, but only a small percentage of drop-outs give poor health as their reason for leaving school. Yet, careful examination of any school's records shows that a high rate of absences usually precedes a permanent withdrawal from school. Whether a large majority of the original excuses of illness were false or whether the excessive absences, resulting from illness, developed more dominant reasons for leaving school has not been determined.

Some figures released by the United States Office of Education shows the average rate of holding power throughout the nation just preceding the recent war period. A high school may consider itself statistically up to the normal for the country as a whole if its survival rates were as follows during the late thirties: freshmen, 100 per cent; sophomores, 85 per cent; juniors, 67 per cent; seniors, 59 per cent; and graduates, 52 per cent. The above figures show the national average of survival rates each year for those pupils who enrolled as freshmen in the school year 1934-1935.[15]

Figures are also reported for the national average of survival rates between the eighth and ninth grades, as shown in Table III. It is significant that the survival between the eighth and ninth grades have steadily increased in the past. With only a temporary slump during the early thirties, this trend reached a new high point in the fall of 1935 when over 95 of each 100 pupils in the eighth grade pursued their education into high school.

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[15] Emery M. Foster, "School Survival Rates", School Life, XXIII (March, 1938) pp. 265-66.

TABLE III
SURVIVAL RATES BETWEEN THE EIGHTH AND NINTH GRADES
OVER A NINE YEAR PERIOD IN THE UNITED STATES [16]

Year	Survival Percentage	Year	Survival Percentage
1927	80.0	1932	91.4
1928	82.6	1933	92.1
1929	86.2	1934	93.4
1930	89.8	1935	95.3
1931	94.7		

The old theory that the hurdle between the elementary school and high school is responsible for more drop-outs than that between any other two grades is rapidly becoming false. Using the above data for the entire United States, it appears that the greatest pitfall lies between the sophomore and junior years of school. Of 107 pupils in the eighth grade in 1934, only seven did not reach the ninth grade. Fifteen pupils dropped out between the ninth and tenth, eighteen between the tenth and eleventh, and an additional eight before they reached the twelfth grade. Seven more pupils fell by the wayside during their last year, leaving only 52 of the original 107 to graduate. The percentage of survival for each individual grade was as follows: eighth, 93.4; ninth, 85; tenth, 78.8; eleventh, 88; and 88.1 per cent of those reaching the twelfth grade were graduated.

A number of research problems have been worked out by graduate students pertaining to reorganization or consolidation of our present school systems of Oklahoma. These problems are based on the assumption that there is a minimum size of high school, below which, the efficiency is greatly decreased or the per capita cost of operation is greatly

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[16] Emery M. Foster, loc. cit.

increased. The above assumption has become an accepted fact among school men. The actual size of the minimum school, which still allows for economical operation and efficient instruction, does remain a controversial issue, however.

This disagreement among even professional statisticians and research workers is mainly a result of differences in original data and the final aims to be accomplished. Considering a satisfactory size of high school, primarily from an economic point of view, may show entirely different results from a study based on the minimum satisfactory requirements for building, supplies and equipment, teacher qualifications, transportation, curriculum or holding power. Differences in terrain, geographical location, density of population, characteristics of the inhabitants and many other factors help to complicate the determination of school standards.

A committee for the study of local school units in Oklahoma made this recommendation in 1937, "Each four year high school including grades 9-12 should have a minimum of seven teachers and 155 children or a desirable minimum of ten teachers and 235 children."[17]

In order to determine a desirable size of high school, according to Dawson, an acceptable curriculum offering must be defined. He believes that in view of the fact there are about ten general fields of knowledge now accepted as desirable parts of the high school curriculum, there should be no less than one teacher for each field, or ten teachers in the minimum sized high school.[18] In extreme

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[17] Study of Local School Units in Oklahoma, p. 235.

[18] H. A. Dawson, Satisfactory Local School Units, p. 29.

instances, Dawson explains, some of the major fields may be grouped so that a very small high school might operate satisfactorily with only seven teachers as the absolute minimum.

Keeping the above standards in mind, the succeeding chapters will describe the present attempt to determine some of the factors which affect the holding power of Oklahoma's high schools. It is believed that all other criteria for good high schools are worthless unless they provide for keeping our youth in school and available for instruction.

CHAPTER III

SOURCES OF DATA AND METHODS OF TREATMENT

An important factor to consider when calculating the holding
power of any school is the non-school influences which may affect the
percentage of pupils graduated at any given time. Mass migration re-
sulting from the depression and dust bowl years would greatly affect
the holding power of some Oklahoma high schools during the early and
middle thirties. Likewise, the unnatural circumstances during World
War II would render figures during that period which were not truly
representative. Therefore, it was decided to study the four year
period from 1937 to 1941, which represents the most normal four years
for Oklahoma schools in almost two decades. A check was also made for
the years from 1941 to 1945 to show briefly the effect of the war on
our public schools.

Since this study was intended to show a state wide picture of the
holding power of Oklahoma high schools, rather than for a particular
locality, it was necessary to choose the schools to be considered. To
include all the schools of the state may have resulted in more accurate
representations of various regions, but the increased volume of material
would have necessarily curtailed the treatment of data.

As an alternative, a system was devised to obtain an impartial
sample of all the high schools from all sections of the state. High
schools were grouped according to their number of teachers, as listed
in the Oklahoma Educational Directory for the school year 1940-1941.
High schools having three, four, five, six, seven, eight, ten to
twelve, fifteen to twenty, and more than twenty-five teachers were
selected. These groups were further restricted by choosing alpha-
betically the first school in each county which fell in any one of the

above groups. The final result netted 318 schools of various sizes, distributed rather equally throughout the state. Six of these schools were eliminated because of incomplete records, leaving a total of 312 high schools to be studied.

A major portion of the data for the individual schools was obtained from the Application for High School Accrediting Report which is filed annually by each school with the Oklahoma Department of Education. This report is considered reliable, since it is sworn to be correct by the superintendent and other school officials. Also, it is one of the annual official reports to the Department of Education.

All information, relative to the characteristics of the schools, which is used in this study, was taken directly from the above named report of the proper year.

A post card questionnaire was sent to each of the superintendents of the 312 schools requesting information on the major occupation of the community and the efforts of the local school administration toward improving its attendance and holding power. Only 139, or 44.6 per cent, of the questionnaires were returned in time for computation, but this percentage is considered good in view of the fact it was necessary to send them out late in the spring when many of the schools were not in session.

The population of the cities are based on the United States census of 1940 and adapted from Oklahoma Manufactures, a publication by the Oklahoma A&M College Experiment Station. The figures represent the population of towns or cities, if any, where schools are located, and not necessarily the population of the school community.

The holding power for the 312 schools are first checked as a group against each of the factors considered. No other variables are controlled,

hence, the results merely represent trends rather than quantitative values. Finally, those factors which show a distinct relationship with holding power are isolated and cross-examined to obtain a measure of their significance.

CHAPTER IV

THE EFFECT OF AREAL DISTRIBUTION ON HOLDING POWER

The procedure used to select the 312 schools of this study provided a random sample from all parts of the state, but did not provide equal distribution among the various counties. As many as seven schools were selected from some counties while four counties were represented by only one school each. This is not necessarily an indication of the number of schools per county because only one school was chosen from each group in each county, as explained in Chapter III. The resulting data, as shown by counties, are not intended to represent an accurate quantitative measure for the individual county, because of the relatively small sample, but combined with neighboring counties and similar counties shows significant facts about general areas.

Table IV shows the holding power of the high schools over the class of 1941, computed by counties. Note the extremely wide variation from 34.4 per cent in Creek County to 87.5 per cent in Kiowa County. These extremes are closely followed in succession by many other counties approaching the mean, showing a rather uniform distribution between the two extremes.

The map shown on page 23 presents the data of Table IV according to geographical distribution. There can be no doubt that the high schools of Eastern and Southeastern Oklahoma are far below the average for the state in holding power. With two exceptions of Creek and Cleveland counties, all other areas were able to graduate more than fifty per cent of their original enrollment. Note that Cleveland County is represented by only one school and Creek County by four. Also, that with few exceptions, the eastern and southeastern counties consistently show

TABLE IV
HOLDING POWER BY COUNTIES, SHOWING THE NUMBER
OF SCHOOLS AND PUPILS CONSIDERED

County	No. of Schools	Freshmen 1937	Graduates 1941	Holding Power
Adair	3	202	91	45.0
Alfalfa	5	206	131	63.6
Atoka	2	54	24	44.4
Beaver	1	20	13	65.0
Beckham	6	226	146	64.6
Blaine	5	175	108	61.7
Bryan	5	238	132	55.5
Caddo	7	257	140	54.5
Canadian	4	282	179	60.3
Carter	6	412	260	63.1
Cherokee	1	36	13	36.1
Choctaw	2	93	39	41.9
Cimarron	2	47	28	59.6
Cleveland	1	49	23	46.9
Coal	2	105	60	57.1
Comanche	6	428	262	61.2
Cotton	2	118	71	60.2
Craig	5	179	129	72.1
Creek	4	350	187	34.4
Custer	4	131	85	64.9
Delaware	4	179	118	65.9
Dewey	4	138	85	61.6
Ellis	2	69	35	50.7
Garfield	3	524	319	60.9
Garvin	6	276	149	54.0
Grady	6	375	213	56.8
Grant	2	47	26	55.3
Greer	4	144	118	81.9
Harmon	2	42	26	61.9
Harper	2	70	47	67.1
Haskell	2	79	46	58.2
Hughes	6	333	182	54.6
Jackson	4	229	142	62.0
Jefferson	5	179	99	55.3
Johnston	4	112	61	54.5
Kay	4	327	214	65.4
Kingfisher	5	179	126	70.4
Kiowa	7	337	286	87.5
Latimer	1	49	23	46.9
LeFlore	5	256	113	44.1

(continued)

TABLE IV (continued)

County	No. of Schools	Freshmen 1937	Graduates 1941	Holding Power
Lincoln	5	207	111	53.6
Logan	4	268	163	60.8
Love	2	48	19	39.6
Major	3	111	75	67.6
Marshall	4	177	79	44.6
Mayes	3	141	105	74.5
McClain	5	219	125	57.1
McCurtain	4	174	72	41.4
McIntosh	6	293	141	48.1
Murray	4	186	101	54.3
Muskogee	6	704	441	62.6
Noble	3	49	33	67.3
Nowata	4	214	135	63.1
Okfuskee	4	196	126	64.3
Oklahoma	6	291	167	64.3
Okmulgee	5	297	185	62.3
Osage	7	401	235	58.6
Ottawa	3	306	174	56.9
Pawnee	3	140	87	62.1
Payne	5	458	343	74.9
Pittsburg	5	483	272	56.3
Pontotoc	5	377	204	54.1
Pottawatomie	7	643	355	55.2
Pushmataha	3	170	84	49.4
Roger Mills	4	105	69	65.7
Rogers	4	155	78	50.3
Seminole	5	539	326	60.5
Sequoyah	2	102	44	43.1
Stephens	6	435	250	57.5
Texas	3	80	49	61.2
Tillman	5	254	156	61.4
Tulsa	7	399	305	76.4
Wagoner	2	64	35	54.7
Washington	4	427	306	71.7
Washita	6	220	154	70.0
Woods	3	167	94	56.3
Woodward	4	169	121	71.6
Totals	312	17,221	10,268	59.6

DISTRIBUTION OF HOLDING POWER

BY COUNTIES

OKLAHOMA

SCALE OF MILES

0   20   40   60
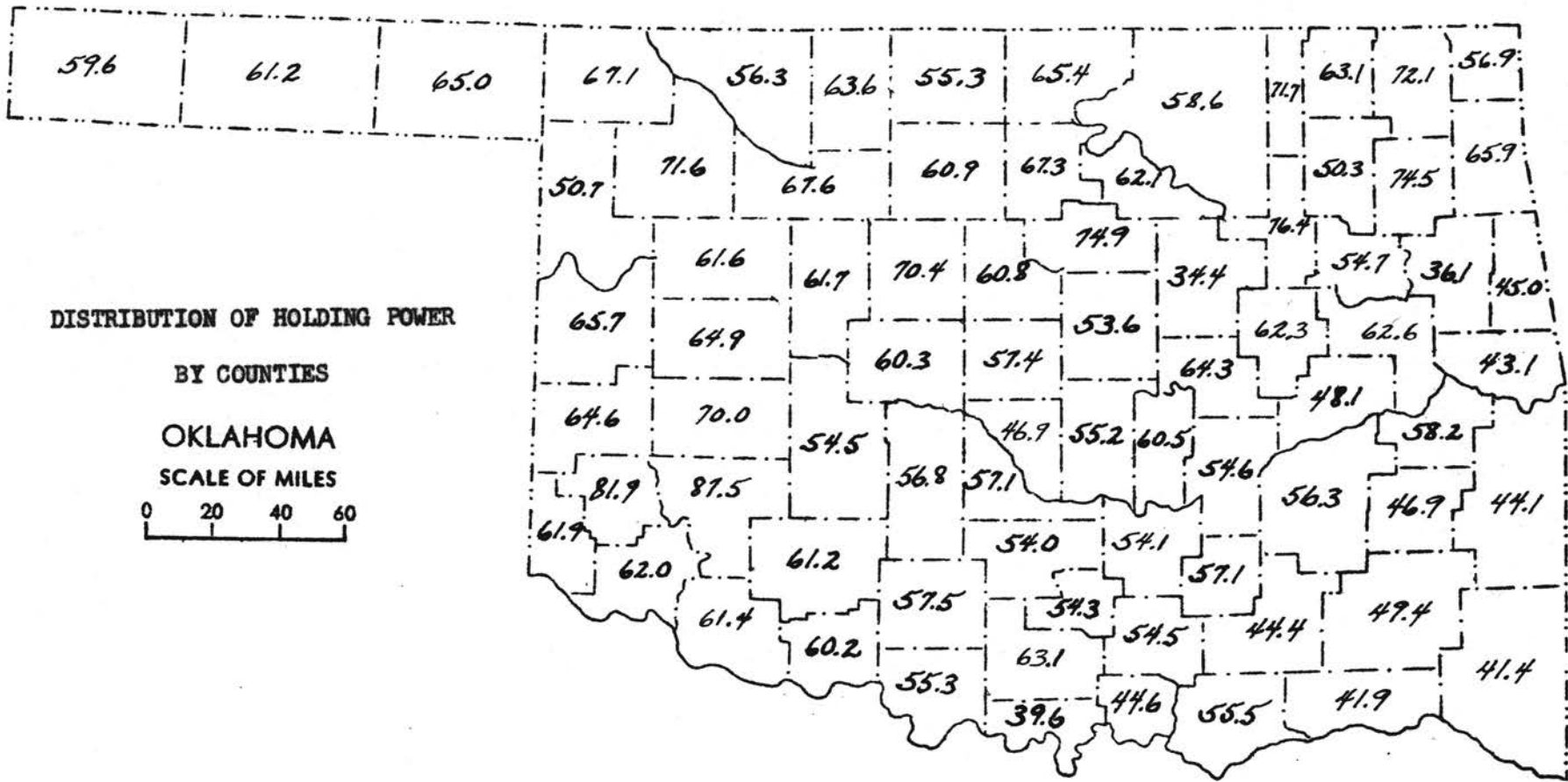
a holding power of less than fifty per cent.

The remainder of the state averages well over the national average of 52 per cent[1] and somewhat higher than the state average of 59.6 per cent, shown in Table IV.

Martin selected the ten counties having the highest holding power and the ten having the lowest holding power in 1928.[2] They are listed in Table V with their holding power as computed in this study. His lowest group still ranks near the bottom of the list and his highest group is still relatively high.

TABLE V

THE HOLDING POWER IN 1941 OF THE TEN HIGHEST AND TEN
LOWEST COUNTIES AS SELECTED BY MARTIN[3] IN 1928

Highest Counties	1941 Holding Power	Lowest Counties	1941 Holding Power
Grant	55.3	Okfuskee	64.3
Custer	64.9	McIntosh	48.1
Alfalfa	63.6	LeFlore	44.1
Garfield	60.9	Latimer	46.9
Kingfisher	70.4	Sequoyah	43.1
Noble	67.3	Atoka	44.4
Kiowa	87.5	McCurtain	41.4
Greer	81.9	Delaware	65.9
Nowata	63.1	Pushamataha	49.4
Kay	65.4	Cherokee	36.1

Table VI, taken from Table IV, shows the ten highest and ten lowest counties in holding power in 1941. Three counties are among the highest group in both Tables V and VI, and five counties are

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[1] Emery M. Foster, "School Survival Rates", School Life, XXIII (March, 1938) pp. 265-66.

[2] James T. Martin, The Holding Power of High Schools in Oklahoma, pp. 21 and 27.

[3] Martin, loc. cit.

common in the two lowest groups. The geographical location of the high and low groups show remarkable similarity when the two studies are compared. Okfuskee and Delaware counties have shown much improvement during the fourteen years from 1927 to 1941 if all data are reliable.

TABLE VI
HOLDING POWER OF THE TEN HIGHEST AND TEN LOWEST
COUNTIES IN 1941

Highest Counties	Holding Power	Lowest Counties	Holding Power
Kiowa	87.5	Creek	34.4
Greer	81.9	Cherokee	36.1
Tulsa	76.4	Love	39.6
Payne	74.9	McCurtain	41.4
Mayes	74.5	Choctaw	41.9
Craig	72.1	Sequoyah	43.1
Washington	71.7	LeFlore	44.1
Woodward	71.6	Atoka	44.4
Kingfisher	70.4	Marshall	44.6
Washita	70.0	Adair	45.0

It has become evident early in this investigation that some of the outstanding factors affecting the holding power of high schools in Oklahoma are largely regional differences. If these differences could be removed or proper adjustment made to bring the holding power of the southeastern counties up to the average of the remainder of the state, Oklahoma would take a prominent lead among the states in its power to hold pupils in high school.

Examination of the taxable assets of the various counties reveals that wealth and holding power vary directly from county to county. Table VII shows the holding power and per child valuation of the ten counties of the state having the highest assessed valuation per school

child.[4] Woodward County is the only county among the highest ten in per child valuation and also among the highest ten in holding power as shown in Table VI; but note the relatively high percentages of holding power of these counties as compared with the remainder of the state.

TABLE VII
HOLDING POWER OF THE TEN COUNTIES HAVING THE
HIGHEST ASSESSED VALUATION PER CHILD

County	Assessed Val. Per Child*	Freshmen 1937	Graduates 1941	Holding Power
Cimarron	$5,981	47	28	59.6
Texas	5,043	80	49	61.2
Grant	4,678	47	26	55.3
Beaver	3,702	20	13	65.0
Alfalfa	3,458	206	131	63.6
Garfield	2,970	524	319	60.9
Ellis	2,944	69	35	50.7
Woodward	2,816	169	121	71.6
Woods	2,695	167	94	56.3
Kay	2,644	327	214	65.4
Totals		1,656	1,030	62.2

The holding power of the ten counties having the lowest assessed valuation per school child is shown in Table VIII. Seven of these counties are also rated among the lowest ten in holding power. The schools in all the counties shown in Table VIII had a holding power of less than fifty per cent, while the schools of every county in Table VII held more than fifty per cent of their pupils.

Table IX shows the relationship between the taxable wealth and the holding power of high schools for all counties of the state.

[4] State Board of Education, Eighteenth Biennial Report of the Superintendent of Public Instruction, p. 282.

* State Board of Education, loc. cit.

TABLE VIII
HOLDING POWER OF THE TEN COUNTIES HAVING THE
LOWEST ASSESSED VALUATION PER CHILD

County	Assessed Val. Per Child*	Freshmen 1937	Graduates 1941	Holding Power
McCurtain	$391	174	72	41.4
Cherokee	431	36	13	36.1
Adair	504	202	91	45.0
Sequoyah	519	102	44	43.1
Pushmataha	601	170	84	49.4
Choctaw	614	93	39	41.9
McIntosh	660	293	141	48.1
Atoka	688	54	24	44.4
LeFlore	698	256	113	44.1
Latimer	700	49	23	46.9
Totals		1,429	644	45.1

It is readily observed, that near the bottom of the scale of holding power, the two items are so closely related that much importance must be assigned to the economic factor. This agrees with the findings by Prince when he investigated the socio-economic status as a factor in educational success of the Wagoner High School pupils.[5]

Near the top of the scale, there is not so much correlation of the two items, showing that other factors exert a greater influence on the final holding power of a school after a minimum economic level has been attained. The data indicates this minimum economic level to be near one-thousand dollars assessed valuation per child. It is significant that of the fourteen counties showing the lowest holding power, only two have an assessed valuation of more than one-thousand

* State Board of Education, loc. cit.

[5] J. L. Prince, Economic Status as a Factor in the Success of School Children, p. 26.

dollars per child. Exceptions distributed throughout Table IX show there are factors other than economic, exerting a decided influence on holding power. The remarkable success of Haskell, Delaware, and Mayes counties of holding their pupils in school in comparison with their economic status is worthy of commendation.

TABLE IX
A COMPARISON OF THE HOLDING POWER AND ASSESSED
VALUATION PER CHILD OF EACH COUNTY IN OKLAHOMA

County	Holding Power	Assessed Val. Per Child*
Creek	34.4	$1,112
Cherokee	36.1	431
Love	39.6	978
McCurtain	41.4	391
Choctaw	41.9	614
Sequoyah	43.1	519
LeFlore	44.1	698
Atoka	44.4	688
Marshall	44.6	889
Adair	45.0	504
Cleveland	46.9	1,413
Latimer	46.9	700
McIntosh	48.1	660
Pushmataha	49.4	601
Rogers	50.3	1,523
Ellis	50.7	2,944
Lincoln	53.6	1,394
Garvin	54.0	1,152
Pontotoc	54.1	1,167
Murray	54.3	1,147
Caddo	54.5	966
Johnston	54.5	897
Hughes	54.6	816
Wagoner	54.7	1,104
Pottowatomie	55.2	1,129

(continued)

TABLE IX (continued)

County	Holding Power	Assessed Val. Per Child*
Grant	55.3	$4,678
Jefferson	55.3	1,372
Bryan	55.5	758
Pittsburg	56.3	902
Woods	56.3	2,695
Grady	56.8	1,427
Ottawa	56.9	1,062
Coal	57.1	793
McClain	57.1	925
Oklahoma	57.4	2,296
Stephens	57.5	984
Haskell	58.2	555
Osage	58.6	2,335
Cimarron	59.6	5,981
Cotton	60.2	1,176
Canadian	60.3	2,024
Seminole	60.5	1,123
Logan	60.8	2,110
Garfield	60.9	2,970
Comanche	61.2	1,004
Texas	61.2	5,043
Tillman	61.4	1,726
Dewey	61.6	1,450
Blaine	61.7	1,680
Harmon	61.9	1,375
Jackson	62.0	1,313
Pawnee	62.1	1,587
Okmulgee	62.3	1,117
Muskogee	62.6	1,477
Carter	63.1	1,035
Nowata	63.1	1,345
Alfalfa	63.6	3,458
Okfuskee	64.3	924
Beckham	64.6	1,582
Custer	64.9	1,867
Beaver	65.0	3,702
Kay	65.4	2,644
Roger Mills	65.7	1,277
Delaware	65.9	651
Harper	67.1	2,314

(continued)

TABLE IX (continued)

County	Holding Power	Assessed Val. Per Child*
Noble	67.3	$2,502
Major	67.6	2,024
Washita	70.0	1,321
Kingfisher	70.4	2,583
Woodward	71.6	2,816
Washington	71.7	2,292
Craig	72.1	1,980
Tulsa	76.4	2,431
Mayes	74.5	975
Payne	74.9	1,977
Greer	81.9	1,233
Kiowa	87.5	1,697

* State Board of Education, loc. cit.

The density of population seems to have little or no influence on the holding power of high schools. The holding power of the ten highest populated counties is shown in Table X. Tulsa County ranks extremely high with 76.4 per cent, and Creek County is low with 34.4 per cent. The remaining eight counties fall very near the average holding power for the state of 59.6 per cent. The average for the group is 61.3 per cent.

Table XI gives the holding power of the ten lowest populated counties. They also rank very near the state average with the exception of Love County with 39.6 per cent. The average for this group is 61.1 per cent, or only 0.2 per cent below the highest populated counties. It can be concluded, therefore, that distribution of population, as it exists in Oklahoma, has little effect on high school holding power; or that there are other factors which tend to counterbalance any effect it might have.

TABLE X
HOLDING POWER OF THE TEN HIGHEST POPULATED
COUNTIES OF OKLAHOMA

County	Freshmen 1937	Graduates 1941	Holding Power
Oklahoma	291	167	57.4
Tulsa	399	305	76.4
Muskogee	704	441	62.6
Seminole	539	326	60.5
Creek	350	187	34.4
Pottawatomie	643	355	55.2
Kay	327	214	65.4
Garfield	524	319	60.9
Comanche	428	262	61.2
Okmulgee	297	185	62.3
Totals	4,502	2,761	61.3

TABLE XI
HOLDING POWER OF THE TEN LOWEST POPULATED
COUNTIES OF OKLAHOMA

County	Freshmen 1937	Graduates 1941	Holding Power
Cimarron	47	28	59.6
Harper	70	47	67.1
Ellis	69	35	50.7
Beaver	20	13	65.0
Texas	80	49	61.2
Harmon	42	26	61.9
Roger Mills	105	69	65.7
Love	48	19	39.6
Major	111	75	67.6
Dewey	138	85	61.6
Totals	730	446	61.1

Table XII compares the holding power of counties in which are located the ten four-year state supported institutions of higher learning. Contrary to a suggestion offered by Martin, the presence of a state supported college seems to have a very minor effect, if any, on the holding power of high schools in a given locality. Again, in this group, the two extremes are outstanding; Payne County with a holding power of 74.9 per cent and Cherokee with 36.1 per cent. The data for both Cherokee and Cleveland counties are questionable, since only one school is included from each county. The average for the group is 60.1 per cent, with the majority of the counties centering near the state average.

TABLE XII
HOLDING POWER OF COUNTIES WITH FOUR-YEAR STATE
SUPPORTED INSTITUTIONS OF HIGHER LEARNING

County	Freshmen 1937	Graduates 1941	Holding Power
Cleveland	49	23	46.9
Payne	458	343	74.9
Grady	375	213	56.8
Texas	80	49	61.2
Oklahoma	291	167	57.4
Pontotoc	377	204	54.1
Cherokee	36	13	36.1
Woods	167	94	56.3
Bryan	238	132	55.5
Custer	131	85	64.9
Totals	2,202	1,323	60.1

Briefly summarizing, the two outstanding factors associated in this chapter with holding power are geographical location and distribution of wealth. They are no doubt inter-related among themselves and affected by many other variables. The southeastern section of the state is outstandingly low in holding power and also in taxable wealth per school

child. The remainder of the state shows rather uniform holding power among its high schools with exceptional counties distributed in random fashion. The uneven distribution of population and the location of state supported institutions of higher learning have little or no effect on high school holding power. There is evidence of other factors affecting the holding power and investigation of some of them will be described in the following chapters.

CHAPTER V

HOLDING POWER AS RELATED TO THE NUMBER OF TEACHERS
AND AVERAGE DAILY ATTENDANCE

The system of state aid for schools, used during the period from
1937 to 1941, provided for a minimum school program, including the
number of teachers, according to the average daily attendance of pupils
in a school. Since most of the schools of Oklahoma are state-aid schools
and maintain the minimum program, the number of teachers in a school
system largely determines the size of the school.

It seems logical to believe that the very small schools, with their
few teachers and limited curriculum, would have less holding power than
the larger schools. One important factor might possibly alter the
expected results. A small state-aid school is dependent for its very
existence on keeping its average daily attendance at a maximum. Personal
interest and encouragement from the teachers may cause pupils to con-
tinue in school when normally they would drop out, even from a larger
school. On the other hand, this personal interest in the pupil may not
equal the appeal of the larger school, with its broader curriculum and
increased social activities.

Table XIII shows the distribution of the 312 schools according to
the number of high school teachers. Although the original selection of
the schools was based on the number of teachers as listed in the Educa-
tional Directory of 1940-1941, this source was used only for selection
of the schools. Once selected, their exact number of teachers was
obtained from the Application for High School Accrediting Report, and is
considered a more accurate source for this information than the Educa-
tional Directory.

TABLE XIII
DISTRIBUTION OF THE 312 SCHOOLS ACCORDING TO THE NUMBER
OF HIGH SCHOOL TEACHERS

No. of Teachers	No. of Schools	No. of Teachers	No. of Schools
2	3	8	14
3	48	9	11
4	50	10	8
5	52	11	14
6	50	12-20	22
7	28	21 plus	12

In a few cases, the number of teachers per school varied during the four years from 1937 to 1941; so to facilitate the comparisons, the number of teachers employed for the school year 1940-1941 was chosen as an index for each school. It was not intended to study two-teacher schools, but three of those selected had only two teachers and they were included in the tabulations. Forty-one teachers was the largest number reported by any school. The scattered distribution of the larger schools made it necessary to group them for comparison.

The holding power according to the number of high school teachers is shown in Table XIV. The number of schools in each group may be determined by reference to Table XIII. As expected, the holding power increased with the number of teachers per school. With the exception of a noticeable slump in the six, seven, and eight teacher schools, the holding power increases from 39.3 per cent in the two-teacher schools to 66.8 per cent in the schools having more than twenty teachers. From the standpoint of holding power, one can conclude that to increase the number of teachers will tend toward an increase in the efficiency of the school.

That the two-teacher high schools are far below desirable minimum standards is evident. Possibly some of their pupils were transferred

TABLE XIV
HOLDING POWER ACCORDING TO THE NUMBER
OF HIGH SCHOOL TEACHERS

No. of Teachers	Freshmen 1937	Graduates 1941	Holding Power
2	38	14	39.3
3	858	457	53.2
4	1,281	716	55.8
5	1,647	936	56.8
6	2,005	1,117	55.7
7	1,538	846	55.0
8	917	472	51.4
9	756	435	57.6
10	594	374	62.9
11	1,105	675	61.0
12-20	3,075	1,950	63.4
21 plus	3,407	2,276	66.8
Totals	17,221	10,268	59.6

to larger high schools and not deprived of a high school education, but it is obvious as a school unit, they are not efficient and their number should be kept to a minimum.

The temporary slump in the increase of holding power with an increased number of teachers, observed in the six, seven, and eight teacher groups is examined more closely in Tables XIVa, XIVb, and XIVc respectively. It seems to be the result of a transition between the small school, with the teachers' personal interest in the attendance of every child, and the larger school, which depends on an attractive school program for its holding power. There is a general tendency, apparent in each of the three groups, for the holding power to increase as the size of the freshman class decreased for a given number of teachers. The distribution of North Central schools through the three tables proves that they are also typical of the general trend.

TABLE XIVa

AVERAGE NUMBER OF UNITS ACCREDITED AND AVERAGE NUMBER OF FRESHMEN
ACCORDING TO THE HOLDING POWER OF SIX TEACHER HIGH SCHOOLS

Holding Power	No. of Schools	Average No. of Units	Average No. of Freshmen
20-29	1	19	41
30-39	5	22, 1 N.C.	49
40-49	12	22, 1 N.C.	45
50-59	8	22, 1 N.C.	35
60-69	12	20	39
70-79	9	21	37
80-89	2	22, 1 N.C.	36
90-99	1	19	15
Totals	50	21	40

TABLE XIVb

AVERAGE NUMBER OF UNITS ACCREDITED AND AVERAGE NUMBER OF FRESHMEN
ACCORDING TO THE HOLDING POWER OF SEVEN TEACHER HIGH SCHOOLS

Holding Power	No. of Schools	Average No. of Units	Average No. of Freshmen
30-39	4	18	60
40-49	5	23, 1 N.C.	59
50-59	8	19	51
60-69	5	23, 1 N.C.	46
70-79	4	29, 1 N.C.	68
80-89	1	27	44
90-99	2	27, 1 N.C.	48
Totals	29	22	55

Effort on the part of many of these schools to expand their
curricula into the ranks of the larger schools is evident from the
wide variation in number of units for which they are accredited.
There is no doubt that certain qualities affecting the holding power
of very small high schools, have been abandoned in many of these six,
seven, and eight teacher high schools, in quest of a program, typical
of the larger schools, which they are not yet large enough to attain.

TABLE XIVc
AVERAGE NUMBER OF UNITS ACCREDITED AND AVERAGE NUMBER OF FRESHMEN
ACCORDING TO THE HOLDING POWER OF EIGHT TEACHER HIGH SCHOOLS

Holding Power	No. of Schools	Average No. of Units	Average No. of Freshmen
30-39	3	27	75
40-49	3	25	65
50-59	4	27	61
60-69	2	25	43
70-79	2	25, 1 N.C.	83
Totals	14	26	65

Since the number of teachers in a school system affects its holding power, it becomes desirable to investigate the ratio between pupils and teachers. An index for each school was determined by dividing the total number of high school teachers into the total high school enrollment for the school year 1940-1941. This index varied in the 312 schools from nine to forty-six pupils per teacher, as shown in Table XV. The most common ratio was twenty to twenty-four pupils per teacher. Table XVI shows holding power as influenced by the pupil-teacher ratio. Although the spread is not great, the trend of increase is significant. Contrary to popular opinion, the holding power of the schools increased rapidly with increased pupils per teacher. Whether the single school, with a pupil-teacher ratio of forty-six and a relatively low holding power, indicates that the maximum ratio lies between thirty-four and forty-six is questionable. The large number of cases in the other groups do show rather conclusively, however, that with the plan of classroom procedure now followed by high school teachers, an increased ratio of pupils per teacher does not decrease the holding power of the school. The above statement is not intended to disprove modern theories of individualized instruction, but points out the importance of con-

sidering holding power as a factor of efficiency when introducing new practices.

It seems logical to suspect that the percentage of school attendance would be reflected in the holding power of a school. Data were not available to compute the percentage of average daily attendance for the class of 1941 through its four years of high school. As an alternative, based on the assumption that the percentage of average daily attendance is typical of a given school year to year, the percentages were figured for the entire school enrollment of each school for the school year 1940-1941.

TABLE XV
DISTRIBUTION OF SCHOOLS ACCORDING
TO PUPIL-TEACHER RATIO

Pupil-Teacher Ratio	No. of Schools	Pupil-Teacher Ratio	No. of Schools
9-14	28	25-29	66
15-19	78	30-34	26
20-24	113	46	1

TABLE XVI
HOLDING POWER ACCORDING TO THE PUPIL-TEACHER RATIO

Pupil-Teacher Ratio	Freshmen 1937	Graduates 1941	Holding Power
9-14	555	321	57.8
15-19	2,189	1,266	57.8
20-24	4,829	2,817	58.3
25-29	6,517	3,956	60.7
30-34	3,094	1,889	61.1
46	37	19	51.4
Totals	17,221	10,268	59.6

The holding power is shown according to the percentage of average daily attendance in Table XVII. Beyond question, there is a relationship between attendance and holding power. From the schools with very poor attendance, the holding power increases steadily from 46.1 per cent to a high of 66.1 per cent for schools with an average daily attendance of ninety-one to ninety-five per cent. No significance will be assigned to the decrease in holding power of the ten schools reporting an average daily attendance ranging between ninety-six and ninety-nine per cent of their total enrollment. Because of their uncommonly high attendance averages, and without varification of the original school attendance records, it seems proper to reserve interpretation and judgment for the reader.

TABLE XVII
HOLDING POWER AND DISTRIBUTION OF SCHOOLS ACCORDING TO THE
PERCENTAGE OF AVERAGE DAILY ATTENDANCE

Percentage ADA	No. of Schools	Freshmen 1937	Graduates 1941	Holding Power
64-70	7	230	106	46.1
71-75	20	723	348	48.1
76-80	62	3,468	1,940	55.9
81-85	99	6,068	3,520	58.0
86-90	80	4,849	3,118	64.3
91-95	34	1,416	936	66.1
96-99	10	467	300	64.2
Totals	312	17,221	10,268	59.6

It has been shown in this chapter that the number of teachers per school and the percentage of average daily attendance per school are clearly related to holding power. A comparison of these two factors is made in Table XVIII to determine their interdependence. The results shown in Tables XIV and XVII would cause one to expect pronounced correlation between the number of teachers and the percentage of average

TABLE XVIII
AVERAGE DAILY ATTENDANCE ACCORDING TO THE NUMBER
OF TEACHERS IN HIGH SCHOOL, 1940-1941

No. of Teachers	Total Enrol. 1940-1941	Total ADA 1940-1941	Percentage ADA
2	96	76	79.2
3	2,892	2,388	82.6
4	4,059	3,389	83.5
5	5,641	4,668	82.7
6	7,175	6,002	83.6
7	5,251	4,337	82.6
8	3,791	3,200	84.4
9	2,536	2,141	84.4
10	2,152	1,830	85.0
11	4,445	3,715	83.6
12-20	11,733	9,500	81.0
21 plus	12,616	10,505	83.3
Totals	62,387	51,751	82.9

daily attendance. As a matter of fact, the values do show a correlative relationship between the two and six teacher schools, and again between the seven and ten teacher schools; but the very small schools have approximately the same percentage of average daily attendance as the very large schools. The range of values is not great in any case. The logical conclusion, therefore, is that the number of teachers per school and the percentage of average daily attendance per school, two comparatively unrelated factors, are each closely related to holding power.

CHAPTER VI

THE CURRICULUM AS A FACTOR IN HOLDING POWER

The relationship of the curriculum offering of a school to its
holding power can not be entirely isolated from some of the other
factors already considered. Since the number of different courses
taught in a given school is largely dependent on the size of the
teaching staff, certain predictions can be made from results deter-
mined in Chapter V. The usual academic or "college preparatory"
subjects, commonly taught in all high schools will not be considered;
rather, it is intended to investigate the influence of those addi-
tional high school courses, generally added to the standard curriculum
as electives.

The courses were chosen from the 1940-1941 curriculum, on the
assumption of that year representing the typical offering of a given
school.

Table XIX shows the distribution of schools according to the
number of commercial subjects offered. It is significant that only
ten of the 312 schools offered no commercial subjects. The data
indicates that a commercial department is becoming a standard part of
all high schools, regardless of size. No distinction is made regard-
ing which subjects are taught in preference to others. It is a common
practice in many schools to alternate subjects from year to year,
thus enlarging their total curriculum offering.

The holding power is shown in Table XX according to the number of
commercial subjects taught in the school. Note the holding power for
all groups is below the average for the state except the two groups
teaching five and six commercial subjects. These latter groups do not

TABLE XIX
DISTRIBUTION OF SCHOOLS ACCORDING TO THE NUMBER
OF COMMERCIAL SUBJECTS OFFERED

No. of Subjects	No. of Schools	No. of Subjects	No. of Schools
0	10	4	82
1	14	5	68
2	48	6	16
3	74		
		Total	312

TABLE XX
HOLDING POWER ACCORDING TO THE NUMBER OF
COMMERCIAL SUBJECTS OFFERED

No. of Subjects	Freshmen 1937	Graduates 1941	Holding Power
0	229	120	52.4
1	390	193	49.5
2	1,480	805	54.4
3	2,971	1,677	56.4
4	4,326	2,529	58.5
5	5,915	3,772	63.8
6	1,910	1,172	61.4
Totals	17,221	10,268	59.6

show exceptionally high holding power, being only slightly higher than
the state average. It is apparent that commercial subjects are taught
in schools having both high and low holding power, with a slight ten-
dency toward an increased number of courses in the better schools.

Table XXI shows the distribution of schools and holding power
according to the number of units of foreign languages taught in the
school. The column giving the average number of freshmen per school
in each group is included to show a rough comparison of the size of
the high schools in the different groups.

TABLE XXI

DISTRIBUTION OF SCHOOLS AND HOLDING POWER ACCORDING
TO THE NUMBER OF UNITS OF FOREIGN LANGUAGE, SHOWING
THE AVERAGE NUMBER OF FRESHMEN IN EACH GROUP

No. of Units	No. of Schools	Average No. of Freshmen	Holding Power
0	224	34	54.8
2	52	64	60.1
4	23	136	65.1
5	2	235	68.6
6	8	214	65.9
7	2	291	63.8
9	1	480	59.6
Totals	312	55	59.6

Generally speaking, the number of courses offered, increase with
the size of the high school. The holding power reaches its peak of
68.6 per cent in the schools offering five units of foreign language,
and then decreases as the number of units increase, even in the larger
schools. Could it be that a school can literally offer too much foreign
language? This is undoubtedly true in the smaller schools with their
limited teaching staff, but three or four extra units should not affect
the larger schools materially. One possibility is that an exceptionally
large number of units in foreign languages indicates poor planning of
the curriculum in general, and the school is not providing for the needs
and interests of its pupils. From Table XXI, three definite conclusions
can be made: (1) less than one-third of the high schools offer any
form of foreign language, (2) only the larger schools include foreign
languages in their curricula, and (3) schools offering more than five
units of foreign language tend to have a decreased holding power.

All comparisons and distributions of holding power have been made
of the entire pupil enrollment and no distinction made between the

holding power of boys and girls. Since industrial arts and vocational agriculture are typically offered to boys, it will be necessary to eliminate girls from the data in order to get a true representation. For a similar reason, the holding power for girls according to the teaching of home economics and music will be made with the boys excluded. Some approximation is necessary because the State Department of Education did not require a separate report of the sexes in 1937. The separate holding power for boys and girls is computed on the assumption that the freshman class of 1937 was equally divided between the sexes. More recent data show this assumption to be approximately correct in most instances, provided a large enough sample is selected. There is a tendency for the girls to outnumber the boys slightly.

The holding power of boys according to the number of units of industrial arts in the school curriculum is shown in Table XXII. The average holding power of boys in the state is 54.7 per cent, or about five per cent below the state average. The differences in holding power for boys and girls will be treated more thoroughly in Chapter IX.

TABLE XXII

DISTRIBUTION OF SCHOOLS AND HOLDING POWER FOR BOYS AC-
CORDING TO THE NUMBER OF UNITS OF INDUSTRIAL ARTS AND
SHOWING THE AVERAGE NUMBER OF FRESHMEN IN EACH GROUP

No. of Units	No. of Schools	Average No. of Freshmen	Holding Power–Boys
0	195	35	49.4
1	43	70	55.2
2	52	79	57.0
3	15	150	61.7
4	6	144	64.0
5	1	159	68.3
Totals	312	55	54.7

One hundred and ninety-five of the 312 schools did not offer any form of industrial arts classes. They are the only group in Table XXII with a holding power for boys which is less than the average holding power in the state. It is further pointed out that each additional unit of industrial arts shows a corresponding increase in the holding power of boys.

An unexpected relationship between the holding power for boys and the teaching of vocational agriculture is shown in Table XXIII. Considering the variables and approximations involved, an interpretation is likely to be erroneous. Disregarding the invisible factors, the less concentrated program of vocational agriculture shows the higher holding power.

TABLE XXIII
DISTRIBUTION OF SCHOOLS AND HOLDING POWER FOR BOYS ACCORD-
ING TO THE NUMBER OF UNITS OF VOCATIONAL AGRICULTURE

No. of Units	No. of Schools	Average No. of Freshmen	Holding Power-Boys
0	215	48	54.5
1	2	132	70.4
2	6	55	69.3
3	4	124	62.1
4	84	68	52.8
Totals	311*	55	54.7

* The record of one school was lost during this computation.

The four-year program in eighty-four schools had a lower holding power than the average for the state and even lower than the group of schools offering no agriculture. Furthermore, these schools with four years of vocational agriculture have three per cent less holding power for boys than the one-hundred schools (Chapter VII) identifying themselves in the questionnaire as primarily agricultural communities.

The holding power for girls according to the schools offering vocational home economics and music is shown in Tables XXIV and XXV respectively. A much larger portion of the schools provide home economics for girls than provide agriculture for the boys. The average school not providing home economics is small indeed, with only twenty-seven freshmen. Both this group and the schools offering only one year have a holding power for girls below the state average of 64.5 per cent. All other groups have about the same holding power for girls, regardless of the number of hours of home economics offered.

TABLE XXIV
DISTRIBUTION OF SCHOOLS AND HOLDING POWER FOR GIRLS
ACCORDING TO THE NUMBER OF UNITS OF VOCATIONAL HOME
ECONOMICS OFFERED

No. of Units	No. of Schools	Average No. of Freshmen	Holding Power - Girls
0	67	27	61.9
1	20	32	57.1
2	123	45	65.2
3	42	91	65.7
4	60	89	66.0
Totals	312	55	64.5

TABLE XXV
DISTRIBUTION OF SCHOOLS AND HOLDING POWER FOR GIRLS
ACCORDING TO THE NUMBER OF UNITS OF MUSIC OFFERED

No. of Units	No. of Schools	Average No. of Freshmen	Holding Power - Girls
0	193	37	60.8
1	65	63	67.7
2	54	110	66.8
Totals	312	55	64.5

The relationship between music in the curriculum and holding power for girls is shown in Table XXV. There is a difference of less than one per cent holding power depending on whether the school offers one or two units of music. Those schools not offering music drop well below the state average of 64.5 per cent holding power for girls. It is important that throughout this chapter, the group of schools not offering the subject considered were small, and demonstrated relatively less holding power than the other schools.

Of more importance than the influence of any particular subject on holding power is the fact that small schools, with their limited staffs and teaching facilities, are greatly handicapped in their efforts to offer a curriculum necessary to capture the interests of all the pupils and keep them in school until graduation.

CHAPTER VII

THE EFFECTS OF GENERAL CHARACTERISTICS OF SCHOOL
AND COMMUNITY

The superintendents of the 312 schools were asked, by means of the questionnaire described in Chapter III, to identify their respective school communities according to the major occupation of their patrons.

Results of this classification are tabulated in Table XXVI. Only 139 schools responded, and of that number, 100 school communities reported that more than half of the patrons of the school were engaged in agriculture. Of the remaining thirty-nine, eighteen reported oil production; nine reported mining; two, manufacturing; and ten reported general business as the major occupation.

Table XXVI also shows the average number of freshmen per school in each group. As was explained in Chapter III, it was necessary to mail the questionnaire late in the spring when many schools were already dismissed for the summer. That there was a selective factor affecting the answers received, is evidenced by the relatively small average size of the schools failing to report.

The holding power of the high schools, grouped according to the major occupation of the community is shown in Table XXVII. The unreported group of 173 schools had the least holding power of any classification except mining, again emphasizing the select group represented by the questionnaires.

The agricultural group of 100 schools was unique in having a holding power exactly equal to the average for the entire state. Also, when computing the holding power for boys and girls separately, by the method described in Chapter VI, the holding power for boys is 55.8 per

TABLE **XXVI**
DISTRIBUTION OF SCHOOLS ACCORDING TO THE MAJOR OCCUPATION
OF THE COMMUNITY, SHOWING THE AVERAGE SIZED FRESHMAN
CLASS IN EACH GROUP

Major Occupation	No. of Schools	Average No. of Freshmen
Not reported	173	45
Agriculture	100	51
Oil Production	18	81
Mining	9	77
Manufacturing	2	203
General Business	10	177
Totals	312	55

TABLE **XXVII**
HOLDING POWER ACCORDING TO THE MAJOR OCCUPATION
OF THE COMMUNITY

Major Occupation	Freshmen 1937	Graduates 1941	Holding Power
Not reported	7,759	4,516	58.2
Agriculture	5,133	3,062	59.6
Oil Production	1,456	869	59.7
Mining	695	401	57.7
Manufacturing	407	273	67.7
General Business	1,771	1,147	64.8
Totals	17,221	10,268	59.6

cent or 01.1 per cent above the state average for boys; while the hold-
ing power for girls is 63.9 per cent, or 0.6 per cent below the state
average. This bit of information is significant in view of many recent
reports that rural youth are responsible for a major portion of the
school-leaving problem.

Another check on the agricultural communities is whether they have
a split-term of school. This information was given on the Application

for High School Accrediting Report, and of the 312 schools, forty-five have a vacation in the fall to allow the children to pick cotton. These forty-five schools enrolled 1,230 freshmen in 1937 and graduated 686 seniors in 1941, which shows a holding power of 55.8 per cent. Of the graduates, there were 292 boys and 394 girls, showing these cotton schools have a very poor holding power for boys.

Oil communities show an average holding power, while the mining communities fall two per cent lower. The schools from the two large manufacturing centers have a very good holding power of 67.7 per cent, and the ten schools reporting general business graduate 64.8 per cent of their pupils.

Similar data are shown in Table XXVIII and XXIX, where the schools are grouped according to the population of the town or city, if any, in which they are located. It is readily assumed that most of the rural and small town schools shown in the first few groups are made up primarily of farm folk.

Oklahoma schools can be typed for size according to the size of the host town or city, as is seen by the relative average size of the freshman class of 1937. If the 168 schools located in towns of less than 500 population had a holding power of 100 per cent, their total school enrollment would still be twenty-seven less than the desirable minimum enrollment recommended by the State Board of Education.[1] More than half of the schools included in this study are located in the sub-standard group.

Table XXIX shows the relative holding power of schools when grouped according to population. Note the steady increase in holding power

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[1] Study of Local School Units in Oklahoma, p. 235.

TABLE XXVIII
DISTRIBUTION OF SCHOOLS ACCORDING TO THE POPULATION
OF CITIES IN WHICH THEY ARE LOCATED

Population of City or Town*	No. of Schools	Average No. of Freshmen
0-499	168	27
500-1499	70	46
1500-2499	25	72
2500-3499	11	76
3500-5499	13	102
5500-9999	10	183
10000 plus	15	247
Totals	312	55

TABLE XXIX
HOLDING POWER ACCORDING TO THE POPULATION OF CITIES
IN WHICH THE SCHOOLS ARE LOCATED

Population of City or Town*	Freshmen 1937	Graduates 1941	Holding Power
0-499	4,541	2,468	54.3
500-1499	3,185	1,757	55.2
1500-2499	1,794	998	55.6
2500-3499	832	508	61.0
3500-5499	1,329	870	65.5
5500-9999	1,833	1,213	66.2
10000 plus	3,707	2,454	66.2
Totals	17,221	10,268	59.6

* According to the U. S. Census: 1940.

from 54.3 per cent to 66.2 per cent as the population of the host city increases. The maximum holding power, as affected by increased population, is reached in cities of about 5,000 population. Above this level, an increase in population leaves the holding power constant.

Another characteristic of the schools which should be some measure of efficiency is the number of units for which each school is accredited

by the Inspection Division of the State Department of Education. The distribution of schools and the comparative size of each group is shown in Table XXX according to the number of high school units for which they are accredited. The credit standing for the school year 1940-1941 was used as an index for the classification. Information necessary for this grouping was not available on fourteen of the 312 schools.

TABLE XXX
DISTRIBUTION OF SCHOOLS AND AVERAGE NUMBER OF FRESHMEN
ACCORDING TO THE NUMBER OF UNITS ACCREDITED

No. of Units	No. of Schools	Av. No. of Freshmen
Not reported	14	48
10-11	3	18
12-13	4	15
14-15	21	17
16	18	21
17-18	43	24
19-20	47	29
21-22	33	39
23-24	32	46
25-29	34	58
30-39	17	100
40-47	4	222
North Central	42	143
Totals	312	55

Table XXXI shows the holding power of the schools according to the number of units for which they are accredited. Much similarity is noted between this table and Table XIV, page 36, where the schools are grouped according to the number of high school teachers.

All schools which are members of the North Central Association of Colleges and High Schools are grouped together. They are composed of a variety of sizes, but are supposed to have maintained certain

relatively high standards set up by the association. The North Central schools show a holding power well above the state average, but 6.2 per cent lower than the four schools which are not members of the association but accredited for forty or more units.

TABLE XXXI
HOLDING POWER ACCORDING TO THE NUMBER OF UNITS FOR
WHICH THE SCHOOLS ARE ACCREDITED

No. of Units	Freshmen 1937	Graduates 1941	Holding Power
Not reported	668	375	56.1
10-11	54	21	38.9
12-13	60	26	43.3
14-15	367	188	51.2
16	375	203	54.1
17-18	1,022	557	54.5
19-20	1,343	771	57.4
21-22	1,279	724	56.6
23-24	1,460	752	51.5
25-29	1,989	1,084	54.5
30-39	1,693	1,044	61.6
40-47	888	628	70.7
North Central	6,023	3,885	64.5
Totals	17,221	10,268	59.6

A steady increase in holding power is noted with an increase in the number of units for which the high school is accredited, except in the range between twenty-one and twenty-nine units. A micro-analysis of these schools is shown in Tables XXXIa, XXXI b, and XXXIc. The schools represented in these tables are largely the same as those represented in Tables XIVa, XIVb, and XIVc, with the exclusion of all members of the North Central Association.

Note the holding power increases in schools offering twenty-one to twenty-nine units as the size of the freshman class decreases. This is contrary to the general conclusion made in Chapter V regarding the

TABLE XXXIa

AVERAGE NUMBER OF TEACHERS AND FRESHMEN ACCORDING TO
HOLDING POWER OF SCHOOLS ACCREDITED FOR 21-22 UNITS

Holding Power	No. of Schools	Av. No. of Teachers	Av. No. of Freshmen
30-39	1	7	49
40-49	8	6	47
50-59	9	6	33
60-69	8	5	39
70-79	4	6	39
80-89	3	6	26
Totals	33	6	39

TABLE XXXIb

AVERAGE NUMBER OF TEACHERS AND FRESHMEN ACCORDING TO
HOLDING POWER OF SCHOOLS ACCREDITED FOR 23-24 UNITS

Holding Power	No. of Schools	Av. No. of Teachers	Av. No. of Freshmen
30-39	3	6	55
40-49	8	7	46
50-59	14	6	48
60-69	4	7	40
70-79	2	6	29
80-89	1	5	27
Totals	32	6	46

TABLE XXXIc

AVERAGE NUMBER OF TEACHERS AND FRESHMEN ACCORDING TO
HOLDING POWER OF SCHOOLS ACCREDITED FOR 25-29 UNITS

Holding Power	No. of Schools	Av. No. of Teachers	Av. No. of Freshmen
30-39	4	8	72
40-49	8	8	73
50-59	6	9	61
60-69	6	8	53
70-79	6	7	50
80-89	2	6	31
90-99	2	6	33
Totals	34	8	58

relationship between holding power and the pupil-teacher ratio, as the number of teachers does not consistently decrease with the size of the freshman class. The position of transition between the very small school and the large school, occupied by schools accredited for twenty-one to twenty-nine units, limits their ability to administer the educational needs of the larger groups of pupils.

A final comparison was made of the characteristics of size, number of units, and number of teachers of the various high schools according to the holding power of each individual school. The results of the computation for all schools which are not members of the North Central Association are tabulated in Table XXXII. The very small schools predominate both extremes in the range of holding power, with a majority falling in the lowest quartile. The lowest schools are also characterized by the smallest number of accredited units.

TABLE XXXII
CHARACTERISTICS OF SIZE, NUMBER OF UNITS, AND NUMBER
OF TEACHERS ACCORDING TO THE SCHOOL'S HOLDING POWER*

Holding Power	No. of Schools	Av. No. of Freshmen	Av. No. of Units	Av. No. of Teachers
00-09	1	0	17	3
10-19	2	20	15	3
20-29	6	26	16	4
30-39	32	38	17	5
40-49	49	45	21	6
50-59	63	41	20	6
60-69	51	48	21	6
70-79	40	44	20	6
80-89	15	39	23	7
90-99	11	19	19	4
Totals	270	41	20	6

* Does not include North Central Schools.

TABLE XXXIII
CHARACTERISTICS OF SIZE, NUMBER OF UNITS, AND NUMBER
OF TEACHERS OF NORTH CENTRAL SCHOOLS ACCORDING TO
THEIR HOLDING POWER

Holding Power	No. of Schools	Av. No. of Freshmen	Av. No. of Teachers
30–39	1	46	6
40–49	3	76	8
50–59	9	112	12
60–69	19	203	20
70–79	5	100	10
80–89	3	57	8
90–99	2	109	17
Totals	42	143	15

A similar comparison of the forty-two North Central schools is shown in Table XXXIII. Their distribution along the scale of holding power shows them to be somewhat superior to non-member schools; but membership of the association does not necessarily indicate efficiency, so far as holding power is concerned. Tables XXXII and XXXIII show there is great flexibility among schools with the same general external characteristics. This is true especially among the medium and small sized schools.

An examination of some of the internal characteristics, or "personality traits" of a school will be made in Chapter VIII, in the further effort to clarify differences among high schools in the power to hold their pupils.

CHAPTER VIII

POLICIES OF SCHOOL ADMINISTRATION AFFECTING
HOLDING POWER

There may be many small unmeasurable factors connected with school administration which affect the holding power, such as disciplinary practices and general school-community relationships. Certain administrative policies are measurable, however, and their relation to holding power of the school may be computed.

An examination of the records of the 312 schools revealed that the percentage of high school failures per year ranged from zero to twenty-eight per cent of the total enrollment during the school year 1940-1941. This seemed to represent a large variation in the policy of failing pupils among the various schools, so it was examined for a relationship to holding power.

Table XXXIV shows the distribution of schools according to the percentage of failures of the entire student body for the school year 1940-1941. Considering it to be an administrative policy, or school characteristic, to fail a certain number or percentage of the pupils each year, these figures are typical values for the years from 1937 to 1941. From the table, it can be seen that there is little, or no similarity between the percentage of failures and the size of the school. The large and small schools are intermingled in the groups and have lost their identity. Small schools are among those who fail none of their pupils and also among the group that fails more than twenty per cent.

The holding power according to the percentage of failures is shown in Table XXXV. The irregularity in holding power from group to group, as the percentage of failures increases, shows that retaining pupils is

TABLE XXXIV
DISTRIBUTION OF SCHOOLS AND AVERAGE NUMBER OF FRESHMEN
ACCORDING TO THE PERCENTAGE OF FAILURES OF PUPILS

Percentage of Failures	No. of Schools	Av. No. of Freshmen
00	67	37
01	27	51
02	37	38
03	32	77
04	31	63
05	17	58
06	21	86
07	18	72
08	13	34
09	11	96
10–19	25	60
20–28	13	36
Totals	312	55

TABLE XXXV
HOLDING POWER ACCORDING TO THE PERCENTAGE OF
FAILURES OF PUPILS

Percentage of Failures	Freshmen 1937	Graduates 1941	Holding Power
00	2,484	1,474	59.3
01	1,369	823	60.1
02	1,391	838	60.2
03	2,468	1,608	65.1
04	1,954	1,209	61.9
05	981	596	60.7
06	1,814	1,079	59.5
07	1,295	717	55.4
08	445	234	52.6
09	1,053	654	62.1
10–19	1,496	809	54.1
20–28	471	227	48.2
Totals	17,221	10,268	59.6

not a significant factor in holding power, especially when it is kept below six per cent. Some irregularity of the data may be attributed to different interpretations of failure. Where one policy may be to give the pupil failing marks when he does not complete the course, another might merely drop him from the roll but not consider him as having failed.

The data indicates that the most desirable policy is to fail three per cent of the pupils each year, but such a program would not be recommended in exclusion of others without considerably more investigation than is possible here. The pronounced decrease in holding power of schools which fail more than ten per cent of their pupils indicates they are not adjusting themselves to the needs of all their pupils, thus decreasing the opportunity of many to acquire a high school education.

The irregular position in the scale of holding power of those schools failing nine per cent of the student body makes it desirable to isolate those cases for further investigation. Table XXXVa shows a summary of their general characteristics according to their holding power. Three rather large North Central Association schools are responsible for the irregularity. All three of these schools have a holding power well above the average for the state and more than ten per cent above the average for the remainder of the group. If they were removed from the computations in Table XXXV, a normal curve of decreasing holding power would be apparent as the percentage of failures increased above six per cent.

As was explained in Chapter III, a questionnaire was used to determine some of the administrative policies affecting attendance and holding power. Table XXXVI presents the distribution of schools and

TABLE XXXVa
CHARACTERISTICS OF THE SCHOOLS FAILING NINE PER CENT
OF THEIR PUPILS

Holding Power	No. of Schools	Av. No. of Freshmen	Av. No. of Units	Av. No. of Teachers
20-29	1	41	19	6
30-39	1	13	14	2
40-49	1	66	21	7
50-59	2	85	30	9
60-69	1	35	19	4
	2	296	N.C.	28
70-79	1	17	19	4
	1	102	N.C.	13
80-89	0	0	---	0
90-99	1	15	19	6
Totals	11	96	16	11

TABLE XXXVI
DISTRIBUTION OF SCHOOLS AND HOLDING POWER ACCORDING TO
THE PRACTICE OF EXEMPTING PUPILS FROM EXAMINATIONS
FOR PERFECT ATTENDANCE

Date Practice Began	No. of Schools	Holding Power
Not Reported	173	58.2
Not Used	38	63.8
1937 or before	57	59.6
1938	7	63.4
1939	1	70.0
1940	7	67.1
1941 or after	29	55.8
Totals	312	59.6

holding power according to the practice of exempting pupils from examinations as a reward for perfect attendance. It was necessary to determine the date of inauguration of the practice in order to check the effect on holding power from 1937 to 1941.

The most significant discovery from this computation is, although the practice is associated with increased holding power, those schools having maintained the practice for many years show less holding power than the ones beginning the practice in 1938, 1939 or 1940.

The same general relationship is found regarding the practice of giving attendance awards to pupils with perfect attendance, as shown in Table XXXVII. The schools which began the practice on or before 1937 show less holding power than those starting the practice during the period included in this study. The inauguration of the practice after 1940 does not affect the holding power shown in this table.

TABLE XXXVII
DISTRIBUTION OF SCHOOLS AND HOLDING POWER ACCORDING TO
THE PRACTICE OF GIVING AWARDS FOR PERFECT ATTENDANCE

Date Practice Began	No. of Schools	Holding Power
Not used	21	67.4
1937 or before	78	58.3
1938	4	65.3
1939	2	86.9
1940	7	61.9
1941 or after	27	56.6
Totals	139	60.8

One of the most significant practices with relation to holding power is the use of an attendance officer. As shown in Table XXXVIII, the attendance officer has more effect on holding power than either attendance awards or exemption from examinations. The tendency for the holding power to decrease as the practice becomes older and more commonplace is also true of the attendance officer.

A relatively new practice among some of the larger schools in the state, to improve attendance and holding power, is the use of a visiting

teacher. She sometimes serves as the attendance officer as well as social worker and ambassador of good will for the school.

TABLE XXXVIII
DISTRIBUTION OF SCHOOLS AND HOLDING POWER ACCORDING TO
THE USE OF AN ATTENDANCE OFFICER

Date Practice Began	No. of Schools	Holding Power
Not used	120	58.6
1937 or before	9	66.9
1938	1	86.1
1939	1	70.0
1940	2	70.6
1941 or after	6	64.1
Totals	139	60.8

Table XXXIX shows holding power computed according to the use of a visiting teacher. Only three schools of the 139 answering the questionnaire, were employing such a teacher during the years 1937-1941. This number is probably too small to draw any accurate conclusions; also the eight schools employing a visiting teacher after 1940 show their holding power was already well above the average for Oklahoma. The real value of such a teacher can be determined only after she has been given an opportunity to serve in all types of schools.

TABLE XXXIX
DISTRIBUTION OF SCHOOLS AND HOLDING POWER ACCORDING TO
THE USE OF A VISITING TEACHER

Date Practice Began	No. of Schools	Holding Power
Not Used	128	60.4
1937 or before	3	60.7
1941 or after	8	63.2
Totals	139	60.8

The administrative policies which provide for promoting interest among the pupils probably have considerable bearing on the holding power of a given school. The activities for this purpose are classed as extra-curricular and will not be examined as a whole in this study. Three such activities, however, were available for consideration with respect to holding power and will be called interest activities, see page 3 in this study. These three activities, school movies, school newspaper, and student government, are believed not to be characteristic of schools that are not concerned with the interest of the pupil.

Holding power is computed according to interest activities in Table XL.

TABLE XL
DISTRIBUTION OF SCHOOLS AND HOLDING POWER ACCORDING TO
THE INTEREST ACTIVITIES OF THE SCHOOL

Interest Activities	No. of Schools	Holding Power
None	55	54.8
Movies	17	57.4
Newspaper	75	56.3
Student Government	26	51.5
Movies and Newspaper	21	59.6
Movies and Student Government	7	55.3
Newspaper and Student Govt.	62	61.4
All Three	49	63.8
Totals	312	59.6

The student newspaper is the most popular activity, being found in 207 schools compared to 144 for student government and 94 for movies. All groups of schools having only one of the activities are below the state average in holding power, but as more than one activity is added, the holding power increased, with the one exception of a combination of movies and student government. This combination not only shows the

least holding power, but it also is the least popular. A combination
of all three activities results in the highest holding power of any
group.

Briefly summarizing, the percentage of pupils who fail is not
characteristic of the size of the school, but rather, a result of
administrative policy. Failing pupils does not materially effect the
holding power until the ratio exceeds six per cent. The two factors
vary inversely above that ratio.

Practices of awarding pupils for perfect attendance, by exemption
from examinations or giving attendance certificates increases holding
power; but such practices should be rotated frequently, probably every
two or three years, to maintain maximum results.

Use of an attendance officer is one of the most effective practices
for improving holding power. There is danger also of this practice
becoming common-place and decreasing in efficiency.

The employment of a visiting teacher is an innovation in some of
the larger schools. Most of those introducing this practice are
already good schools and data are not available at this time for
accurate conclusions on its relationship to holding power.

Interest activities have a place in the school program. All
schools, regardless of size, seem to have sufficiently wide interests
among the pupils to require two or more interest activities to insure
maximum efficiency in holding power.

CHAPTER IX

DIFFERENCES IN HOLDING POWER FOR BOYS AND GIRLS

One of the outstanding facts established during this study was
the remarkable difference in Oklahoma high schools' holding power for
boys and girls. Martin pointed out in 1928 that 50.4 per cent of the
girls and 41.7 per cent of the boys were completing four years of
high school (see page 6). He concluded, however, that holding power
for boys was increasing more rapidly than for girls, and that more
emphasis should be placed on keeping girls in school.

Thirteen years later, the holding power for boys has not over-
taken that for girls, in fact, there has been no significant change
in the ratio between the two sexes. Because the high school reports
to the state department in 1937 did not separate boys from girls, an
accurate comparison can not be made for the period of this study, as
was explained in Chapter VI. Several checks with other data, however,
reveals that normally about fifty per cent of the freshmen enrollment
is boys and fifty per cent girls. All computations for the following
tables are based on this assumption.

The differences in holding power for boys and girls were computed
for every table shown in the preceding chapters of this study. The
results were so universal and characteristic of all types of schools,
only a few of the comparisons will be presented here for the interest
of the reader.

Table XLI shows a comparison of holding power for boys and girls
according to the number of high school teachers. Note the almost
constant difference between boys and girls in each group of schools.

TABLE XLI
HOLDING POWER FOR BOYS AND GIRLS ACCORDING TO THE
NUMBER OF HIGH SCHOOL TEACHERS

No. of Teachers	No. of Schools	Holding Power	
		Boys	Girls
2	3	42.1	31.6
3	48	46.0	60.6
4	50	50.4	61.4
5	52	52.4	61.2
6	50	49.6	61.8
7	28	50.9	59.0
8	14	46.0	57.0
9	11	51.3	63.2
10	8	56.2	69.7
11	14	57.2	65.0
12-20	22	57.5	69.2
21 plus	12	58.1	69.6
Totals	312	54.7	64.5

Approximately the same relationship is shown in Tables XLII and XLIII, where the holding power for boys and girls are compared according to the pupil-teacher ratio and the population of the host city respectively. It can be seen that holding power for boys and girls varies directly with each new characteristic, the girls continually taking the lead by approximately ten per cent.

TABLE XLII
HOLDING POWER FOR BOYS AND GIRLS ACCORDING TO THE
PUPIL-TEACHER RATIO

Pupil-Teacher Ratio	No. of Schools	Holding Power	
		Boys	Girls
9-14	28	53.4	62.4
15-19	78	50.4	64.4
20-24	113	53.0	63.7
25-29	66	56.5	64.9
30-34	26	56.7	65.4
46	1	39.0	66.7
Totals	312	54.7	64.5

TABLE XLIII

HOLDING POWER FOR BOYS AND GIRLS ACCORDING TO THE POP-
ULATION OF THE CITY IN WHICH THE SCHOOL IS LOCATED

| Population | No. of Schools | Holding Power | |
		Boys	Girls
0-499	168	48.7	60.0
500-1499	70	49.0	61.3
1500-2499	25	54.1	57.2
2500-3499	11	53.8	68.3
3500-5499	13	58.6	72.6
5500-9999	10	61.8	70.6
10000-plus	15	62.6	69.8
Totals	312	54.7	64.5

Such results must necessarily lead to the conclusion that the
forces responsible for these differences are at work in all communities
and all schools alike. Whether they are economic, social, physical or
mental, is beyond the scope of this study; but if we are to educate the
young men of our land, here is specific need for further research.

Education is making progress toward reaching all American youth,
as shown by the increase in holding power of twelve to fourteen per
cent during the one and one-half decades immediately preceding World
War II.

CHAPTER X

THE EFFECT OF THE WAR ON HOLDING POWER

Few people realize, except possibly some directly associated with education, the tremendous effect of World War II on the holding power of Oklahoma high schools. Some boys were drafted into the armed forces before graduation, others volunteered for military service, and hundreds of others left school prematurely as a direct result of the war. Nor do these numbers represent the total loss of education, for it became necessary to employ inexperienced and untrained teachers and supervisors to teach those children who remained in school.

The government program of subsidizing veterans who return to civilian life and re-enter school will do much toward regaining that which was lost during the period of conflict. Many girls, however, left school during the war and will never return to complete their work.

Table XLIV shows a comparison between the enrollment of freshmen in the 312 schools for the school years 1937-1938 and 1941-1942. It will be noted that there were 804 less freshmen enrolled in 1941 than in 1937. The loss was fairly equally distributed among all sizes of schools, showing there had been no mass migration of population before the end of the period from 1937 to 1941, which constituted the major portion of this study. Also of significance is the graduating class of 1945 began their freshman year with a rather complete enrollment.

A comparison of the number of boys and girls who entered high school in 1941 and graduated in 1945 is shown in Table XLV. There were 8,235 girls and 8,182 boys enrolled as freshmen in 1941; only 53 more girls than boys. This bears out the assumption made in Chapters

TABLE XLIV
A COMPARISON OF FRESHMAN ENROLLMENT FOR THE YEARS
1937 AND 1941 ACCORDING TO THE NUMBER OF TEACHERS

No. of Teachers	No. of Schools	Freshmen 1937	Freshmen 1941
2	3	38	36
3	48	858	783
4	50	1,281	1,141
5	52	1,647	1,602
6	50	2,005	1,901
7	28	1,538	1,478
8	14	917	776
9	11	756	775
10	8	594	565
11	14	1,105	1,145
12-20	22	3,075	3,006
21 plus	12	3,407	3,209
Totals	312	17,221	16,417

TABLE XLV
A COMPARISON OF THE FRESHMEN OF 1941 WITH THE GRAD-
UATES OF 1945 ACCORDING TO THE NUMBER OF TEACHERS

No. of Teachers	Freshmen, 1941		Graduates, 1945	
	Boys	Girls	Boys	Girls
2	20	16	5	5
3	399	384	117	183
4	582	559	179	288
5	797	805	242	372
6	983	918	341	466
7	707	775	233	374
8	384	392	140	200
9	367	408	97	187
10	282	283	94	140
11	564	581	222	327
12-20	1,493	1,513	565	918
21 plus	1,608	1,601	733	1,042
Totals	8,182	8,235	2,968	4,502

VI and IX that roughly one-half the enrolling freshmen are girls and one-half boys. Of these totals, only 4,502 girls and 2,968 boys were graduated in 1945, or approximately one-half of the original girls and one-third the original boys.

Table XLVI gives a comparison of the holding power for boys and girls and a comparison of the total holding power for the period ending in 1945 with that ending in 1941.

TABLE XLVI
A COMPARISON OF THE HOLDING POWER OF 1945 AND 1941
ACCORDING TO THE NUMBER OF TEACHERS

| No. of | Holding Power, 1945 | | | Holding |
Teachers	Boys	Girls	Total	Power, 1941
2	25.0	31.2	27.8	39.3
3	29.3	47.6	38.3	53.2
4	30.7	51.5	40.9	55.8
5	30.3	46.2	38.3	56.8
6	34.6	50.8	42.4	55.7
7	33.1	48.2	41.1	55.0
8	36.4	51.0	43.8	51.4
9	26.4	45.8	36.6	57.6
10	33.3	49.5	41.4	62.9
11	39.3	56.3	47.9	61.0
12–20	37.8	60.7	49.3	63.4
21 plus	45.5	65.1	55.3	66.8
Totals	36.2	54.7	45.5	59.6

Note the marked decrease in holding power for both boys and girls during the war. The boys suffered most, with a decrease of more than eighteen per cent, distributed quite uniformly throughout all sizes of schools. The girls sustained a loss of ten per cent also uniformly distributed.

A comparison of the totals for the two periods shows the war period with a holding power of 45.5 per cent against 59.6 per cent for

the period just preceding the war. In other words, one of every four pupils who would have graduated in normal times quit high school before completion as a direct result of the war.

CHAPTER XI

CONCLUSIONS AND RECOMMENDATIONS

A very encouraging fact which became apparent during this study is the remarkable increase in holding power attained by Oklahoma schools during the fourteen years immediately preceding the war. Martin showed that only 46.3 per cent of the freshmen enrolling in high school in 1923 received graduation diplomas in 1927. This study revealed that fourteen years later, 59.6 per cent of those who entered high school had finished the course.

According to figures released by the United States Office of Education, the average holding power for high schools in the nation was 52.0 per cent in 1938. This places Oklahoma above the average, and considering the rapid increase enjoyed in the past, she should attain new heights in the near future. The state has not reached its maximum efficiency, as evidenced by many "light house" schools with holding power ranging above seventy and eighty per cent.

There are fourteen counties with holding power still below fifty per cent. If they could be brought up to the average for the remainder of the state, Oklahoma would assume a leading position among the states in the power to hold her pupils in school.

Most of these counties are located in the east to southeast section of the state. The significant difference between this area and the remainder of the state results from the distribution of per capita wealth. The assessed valuation of property per school child is well below one thousand dollars in nearly all counties with a holding power below fifty per cent. When the assessed valuation per child rises above one thousand dollars, the correlation with holding power

decreases rapidly, showing that above this critical valuation, other
factors become dominant in determining the final holding power. If
the public school system can make the necessary adjustments in these
relatively poor counties, to hold those children in school equally as
well as it does the children of more wealthy counties, a great step
will have been made toward extending educational opportunity to all
Oklahoma youth.

There is little difference in the holding power of the most
highly populated counties from those with the lowest population. The
effects of distant transportation of pupils to school and the relative
sizes of schools may have influenced this comparison; but many of the
sparsely populated counties are also among the highest counties in per
capita wealth. These opposing factors seem to cancel each other and
the schools of the two groups of counties show almost identical holding
power.

The presence of a four-year state supported institution of higher
learning does not insure more holding power for the schools of a
county.

There is a close relationship between the number of teachers in
a school system and its holding power. Generally speaking, an increased
number of teachers results in increased holding power. The curve levels
off somewhat at ten teachers, indicating that the increased holding
power resulting from an additional teacher decreases as the total
number of teachers exceeds ten.

A temporary slump in the curve of holding power of schools having
six, seven, or eight teachers presents a significant situation. A
close examination of these schools reveals their holding power to vary
from twenty to more than ninety per cent. In other words, the groups

are made up of some good and some poor schools. This is true of all
three groups; yet, the three groups as a whole are not as efficient
in holding power as either the four or five teacher groups.

The six, seven, and eight teacher schools occupy a position of
transition between the very small schools with the teachers' personal
interest in the attendance of every child and the larger school which
depends on an attractive school program for its holding power. How well
the individual school adjusts itself to this inevitable position de-
termines its holding power. A decrease in the average size of classes,
or a decrease in the ratio of pupils per teacher aids the school in
making the most desirable adjustment.

The relationship between pupil-teacher ratio and holding power
shows that an increased ratio of pupils per teacher tends to increase
holding power. A closer examination reveals, however, that an increased
pupil-teacher ratio indicates an increase in the size of the high school.
The importance of the size of the school seems much more significant
than the differences in pupil-teacher ratio.

The percentage of average daily attendance, that is, the ratio
between total enrollment and average daily attendance, shows a positive
correlation with holding power. As the percentage of average daily
attendance increases from sixty-four to more than ninety, the holding
power increases from 46.1 to 64.2 per cent.

A comparison between the percentage of average daily attendance
and the number of teachers in a high school shows little or no relation-
ship. These two factors are comparatively unrelated to each other, yet
each factor is closely related to holding power.

The study of the curriculum as a factor affecting holding power
resulted in one major conclusion. Even in very small high schools, the

interests of the pupils are so widely varied they can not be satisfied by teaching one or two elective subjects. This condition gives the larger high schools a great advantage toward offering a curriculum with interest appeal to all pupils.

Commercial subjects have found their way into the curriculum of nearly all high schools. The practice is especially questionable in small schools offering only sixteen units, where the commercial subjects necessarily become required for graduation. An increase in holding power is noted with the addition of each new commercial sub- ject, but further examination reveals that the size of the high school also increases.

Less than one-third of Oklahoma schools include any foreign language in the curriculum. These are the larger schools and tend to increase the number of units offered with an increase in size of the school. When the number of units of foreign languages offered, increases above five, the holding power decreases, even with increasing size of the school. Possibly more than five units represent an undue amount of foreign language in any case and indicates a poorly planned curriculum in general.

Industrial arts in the curriculum seem to have more influence on holding power for boys than any other group of subjects for either girls or boys. A steady increase in holding power is observed with each additional unit of industrial arts. The almost equal average size of schools offering one and two units, and those offering three, four, and five units somewhat eliminates the possibility of size being the determining factor.

The less concentrated program of vocational agriculture shows the greater holding power in all groups of schools. Again the factor

of school size is decreased in importance by the irregular variation
of average size among the different groups. The very low holding
power for boys of the eighty-four schools providing a four-year program
of vocational agriculture casts a doubt as to the advisability of such
an intensive program of agriculture in any school.

The relation of vocational home economics and music to the hold-
ing power for girls indicates that each subject has some influence
toward increasing the holding power. The law of diminishing returns
takes effect with the addition of the third unit of home economics
and the second unit of music.

Differences in occupational pursuits of the various communities
show relatively small effect on holding power. The one hundred schools
reporting agriculture as a major occupation had an average holding
power of 59.6 per cent, or exactly equal to the average for the entire
state. The oil and mining communities were slightly above and below
the state average respectively. The average size of their schools was
larger than the agricultural schools, giving them a slight advantage.
The two manufacturing communities have large schools, and much of their
increased holding power may be attributed to that factor. The same
general deductions can be made for the general business group.

The forty-five schools having split-terms, in order that the
children may pick cotton in the fall, show a relatively low holding
power of 55.8 per cent. They are very small, enrolling an average of
twenty-seven freshmen per school in 1937. Kiowa and Greer counties,
both located in the cotton belt, had a holding power of more than
eighty per cent. Their schools on the average are not large and are
primarily agricultural, showing that a split-term is not always a
dominant factor in controlling holding power.

More than half of Oklahoma's high schools are entirely rural or are located in towns with less than 500 people. The size of the host city is a fair index to the size of the school. Holding power increases with the size of cities up to 5,000 population, or an enrollment of near 100 freshmen per year; increases in population or enrollment above these figures do not increase the holding power.

An increase in the number of units for which the school is accredited by the Inspection Division of the State Department of Education is related to an increase in the holding power of the high school.

North Central schools have a holding power well above the state average, but membership in the association does not necessarily indicate an exceptional school. The transitional position of the six, seven, and eight teacher schools applies to North Central members as well as non-members.

The policy of failing a certain per cent of the total pupil enrollment varies from zero to twenty-eight per cent among Oklahoma high schools. The data indicate the most desirable policy is to fail about three per cent of the pupils in order to secure maximum holding power. When the rate increases above six per cent, a corresponding decrease in holding power results.

The practices of exemption from examinations, giving attendance awards, or employing an attendance officer as an aid to increase attendance and holding power, have positive results. The attendance officer appears to be the most effective method. All three practices are in danger of losing their effect after continued use by becoming stale and common-place. Data were not available to evaluate the use

of a visiting teacher. The few schools employing such a teacher were already good schools before the practice began.

The interests of the pupils in any school, regardless of size, seem to be broad enough to demand multiple interest activities. An increase in holding power was noted with the addition of each new activity.

With few exceptions the holding power for girls was consistently eight to twelve per cent higher than that for boys in all types and sizes of schools and geographical locations. The forces responsible for these differences were at work in all communities. Progress is being made toward improvement of holding power for both boys and girls.

The holding power of Oklahoma high schools was reduced 14.1 per cent as a direct result of the war. This means that approximately one of every four pupils who would have graduated in normal times left school before completion during the war years.

The results of this study reveal that no fixed list of factors can be formulated which will insure maximum holding power. The exceptions and contradictions in almost every classification or grouping show that high holding power is not impossible in most any case. There are small schools and poor schools with very high holding power, while there are large schools and rich schools doing a relatively poor job of holding their pupils in school.

School administrators should sponsor a program at all times to improve school attendance and take necessary steps to keep the program effective.

Failing a high percentage of the pupils may not indicate exceptionally high standards, but rather, indicate failure on the part

of the school to properly instruct its pupils.

Administrators of six, seven, and eight teacher high schools should be especially alert to the danger that their schools might not be obtaining the best possible results.

"Horse and buggy" school districts should be abolished and new districts organized on the basis of modern transportation and communication.

An effort should be made to organize school districts in such a way that the taxable wealth per child would not fall below one-thousand dollars.

The increased size of a school is always associated with increased holding power, but it also bears relationship to many other factors. It permits an increased number of teachers; a broader curriculum; greater specialization; better school plant and facilities; more social, educational, and physical activities; employment of better qualified administrative officials and classroom teachers—all these, and other features are possible in the larger school system at no extra cost to the taxpayer.

Sparsely populated areas have an argument for a continuation of their small school systems which now exist. This is especially true in areas of extremely rough country and poor roads.

This study shows that the desirable minimum sized high school in Oklahoma should have ten teachers, 75 to 100 enrolling freshmen each year, a curriculum of thirty or more units, and possess all the other general qualities common to a school of that size, in order that it might satisfactorily meet the needs and interests of all its pupils.

A study of this kind must necessarily make one conscious of certain underlying truths which can not be presented in tabular form nor justified by treatise. These elusive facts are available for the interested reader who will study the data thoroughly.

QUESTIONNAIRE

A facsimile of the post-card questionnaire, which was mailed to each superintendent of the 312 schools included in this study, is shown below. Each card was numbered according to the numbers previously assigned to the various schools. The number system excluded the possibility of personalities influencing the treatment of data received.

May 16, 1946

Dear Sir:

    I am making a study of a number of schools in Oklahoma to be used for my master's thesis. Your school is one of that number. Please check the items applicable on the attached card and drop it in the mail at your earliest convenience.

Sincerely yours,
(Signed) Robert C. Fite

Please indicate the date of inauguration of any plan or service being used to improve the attendance and "holding power" of your school.

19__Visiting Teacher   19__Attendance Awards
19__Attendance Officer 19__Exemption from
                                Examinations
Describe briefly any other:_____

Please check the major occupation(s) of your patrons. If more than one is checked, give estimated percentage in each.
__Agricultural __Oil __Mining   No.146
__Manufacturing Any other_____

BIBLIOGRAPHY

Blose, David T. "School Attendance of Urban and Rural Pupils". _Education for Victory_, III (November 20, 1944) 20.

Brazelton, Calanthe. "Excessive Absence of High School Girls". _School Review_, XLVII (January, 1939) 51-55.

Burke, A. J. _Defensible Spending for Public Schools_. New York: Columbia University Press, 1943.

Clark, Haskell G. _The Present Status of Extra-Curricular Activities in Oklahoma High Schools_. Stillwater, Oklahoma: Unpublished Master's Thesis, Oklahoma Agricultural and Mechanical College, 1933.

Cooper, H. _An Accounting of Progress and Attendance of Rural School Children in Delaware_. New York: Bureau of Publications, Teachers College, Columbia University, 1930.

Cooperative Study of Secondary School Standards. _Educational Temperatures_. Washington, D. C.: Cooperative Study of Secondary School Standards, 1938.

Cooperative Study of Secondary School Standards. _Evaluative Criteria_. Washington, D. C.: Cooperative Study of Secondary School Standards, 1938.

Cooperative Study of Secondary School Standards. _How to Evaluate a Secondary School_. Washington, D. C.: Cooperative Study of Secondary School Standards, 1938.

Cornelius, Samuel. "School Leaving". _School and Society_, LIII (January 4, 1941) 29-32.

Cyr, F. W., Burke, A.J., and Mort, P.R. _Paying for Our Public Schools_. Scranton, Pennsylvania: International Textbook Company, 1938.

Dawson, H. A. _Satisfactory Local School Units_. Nashville, Tennessee: George Peabody College for Teachers, 1934.

Delay, Bethel. _A Study of the Causes of Non-Attendance in High School of Students Completing the Eighth Grade from Mayes County in 1934_. Stillwater, Oklahoma: Unpublished Master's Thesis, Oklahoma Agricultural and Mechanical College, 1936.

Editorial. "Why High School Pupils Leave School". _School Review_, LIV (May, 1946) 255-56.

Editorial. "Why Rural Youths Do Not Attend High School". _School Review_, XLVIII (October, 1940) 568-69.

Educational Conference Board of New York State. What Education Our Money Buys. Albany, New York: Educational Conference Board of New York State, 1943.

Educational Policies Commission. Education for All American Youth. Washington, D. C.: National Education Association of the United States and the American Association of School Administrators, 1944.

Ekstrom, G. F. "Why Farm Children Leave School". School Review, LIV (April, 1946) 231-37.

Ferris, E. N., Gaumnitz, W. H., and Brammell, P. R. The Smaller Secondary Schools. Washington, D. C.: United States Government Printing Office, 1933.

Foster, Emery M. "School Survival Rates". School Life, XXIII (March, 1938) 265-66.

Gaumnitz, Walter H. "High School Attendance and Postwar Planning". Education for Victory, III (November 3, 1944) 7-8.

Gilham, A. L. Reorganization of Schools of Beckham, Washita, Caddo, Roger Mills, and Jackson Counties in Such a Way that the Minimum High School Will Have an Average Daily Attendance of 135 Students. Stillwater, Oklahoma: Unpublished Master's Thesis, Oklahoma Agricultural and Mechanical College, 1936.

Jackson, P. B. "Back to School". School Review, LI (October, 1943) 457-58.

Jelsma, Lillian K. The Factors that Have Influenced Public School Attendance During the Past Thirty Years in Oklahoma. Stillwater, Oklahoma: Unpublished Master's Thesis, Oklahoma Agricultural and Mechanical College, 1938.

Martin, James Taylor. The Holding Power of High Schools in Oklahoma. Norman, Oklahoma: Unpublished Master's Thesis, University of Oklahoma, 1928.

National Association of Secondary School Principals. Planning for American Youth. Washington, D.C.: National Association of Secondary School Principals, 1944.

Oklahoma Educational Directory. Oklahoma City: State Board of Education, 1940-1941.

Prince, J. L. Economic Status as a Factor in the Educational Success of School Children. Stillwater, Oklahoma: Unpublished Master's Thesis, Oklahoma Agricultural and Mechanical College, 1936.

Scott, Charles Dale. An analytical Survey of the Three-Teacher, Four-Year, Accredited High Schools of Oklahoma. Stillwater, Oklahoma: Unpublished Master's Thesis, Oklahoma Agricultural and Mechanical College, 1933.

Smith, C. B. "Study of Pupils Dropping Out of a Midwestern High School". School Review, LII (March, 1944) 151-56.

Staff of the Oklahoma Study of Local School Units. Study of Local School Units in Oklahoma. Oklahoma City: State Department of Education, 1937.

State Board of Education.
Fifteenth Biennial Report of the Superintendent of Public Instruction. Oklahoma City: State Board of Education, 1934.

Sixteenth Biennial Report of the Superintendent of Public Instruction. Oklahoma City: State Board of Education, 1936.

Seventeenth Biennial Report of the Superintendent of Public Instruction. Oklahoma City: State Board of Education, 1938.

Eighteenth Biennial Report of the Superintendent of Public Instruction. Oklahoma City: State Board of Education, 1940.

Nineteenth Biennial Report of the Superintendent of Public Instruction. Oklahoma City: State Board of Education, 1942.

Twentieth Biennial Report of the Superintendent of Public Instruction. Oklahoma City: State Board of Education, 1944.

Thuesen, H. G. Oklahoma Manufactures, 1940. Stillwater, Oklahoma: Engineering Experiment Station, Oklahoma Agricultural and Mechanical College, 1941.

United States Chamber of Commerce. Education - An Investment in People. Washington, D. C.: United States Chamber of Commerce, 1944.

United States Department of Commerce. Sixteenth Census of the United States. Washington, D. C.: United States Government Printing Office, 1943.

Vincent, W. S. Emerging Patterns of Public School Practice. New York: Bureau of Publications, Teachers College, Columbia University, 1945.

Wyatt, W. B. A Study of the Basic Causes of Students Leaving High School. Stillwater, Oklahoma: Unpublished Master's Thesis, Oklahoma Agricultural and Mechanical College, 1938.

Ziegler, C. W. School Attendance as a Factor in School Progress. New York: Bureau of Publications, Teachers College, Columbia University, 1928.

Typist: Evelyn D. Calhoun